

Attachment 2

Network Elements and Other Services

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ACCESS TO NETWORK ELEMENTS AND OTHER SERVICES

1. Introduction

- 1.1 This Attachment sets forth rates, terms and conditions for Network Elements and combinations of Network Elements that BellSouth agrees to offer to <<customer_name>> in accordance with its obligations under Section 251(c)(3) of the Act. Additionally, this Attachment sets forth the rates, terms and conditions for other services BellSouth makes available to <<customer_name>>. The price for each Network Element and combination of Network Elements and other services are set forth in Exhibit B of this Agreement. Additionally, the provision of a particular Network Element or service may require <<customer_name>> to purchase other Network Elements or services.
- 1.2 For purposes of this Agreement, "Network Element" is defined to mean a facility or equipment <<customer_name>> used in the provision of a telecommunications service. For purposes of this Agreement, combinations of Network Elements shall be referred to as "Combinations."
- 1.2.1 Except as otherwise required by law, BellSouth shall not impose limitations, restrictions or requirements on a request for the use of the network elements or combinations that would impair the ability of CLEC-1 to offer telecommunications service in the manner CLEC-1 intends.
- 1.2.2 Except upon request by CLEC-1, BellSouth shall not separate requested network elements that BellSouth combines.
- 1.2.2.1 BellSouth will provide Currently Combined, Ordinarily Combined and Not Typically Combined Unbundled Network Element Combinations as said combinations are defined and set forth in Section 5 of this Attachment.
- 1.3 BellSouth shall, upon request of <<customer_name>>, and to the extent technically feasible, provide to <<customer_name>> access to its Network Elements for the provision of <<customer_name>>'s telecommunications services. If no rate is identified in this Agreement, the rate for the specific service or function will be as set forth in the applicable BellSouth tariff or as negotiated by the Parties upon request by either Party.
- 1.4 <<customer_name>> may purchase Network Elements and other services from BellSouth for the purpose of combining such network elements in any manner <<customer_name>> chooses to provide telecommunication services to its intended users, including recreating existing BellSouth services. With the exception of the sub-loop Network Elements which are located outside of the

central office, BellSouth shall deliver the Network Elements purchased by <<customer_name>> to the designated <<customer_name>> collocation space.

1.5 BellSouth shall comply with the requirements as set forth in the technical references within this Attachment 2.

1.6 **Rates**

1.6.1 The prices that <<customer_name>> shall pay to BellSouth for Network Elements and Other Services are set forth in Exhibit B to this Attachment. If <<customer_name>> purchases a service(s) from a tariff, all terms and conditions and rates as set forth in such tariff shall apply.

1.6.2 Cancellation Charges. If <<customer_name>> cancels an order for Network Elements, Combination or other services, any costs incurred by BellSouth in conjunction with the provisioning of that order will be recovered in accordance with FCC No. 1 Tariff, Section 5.

1.6.3 Expedite Charges. For expedited requests by <<customer_name>>, expedited charges will apply for intervals less than the standard interval as outlined in the BellSouth Product and Services Interval Guide. The charges as outlined in BellSouth's FCC No. 1 Tariff, Section 5, will apply.

1.6.4 Order cancellation and expedite charges will apply in accordance with the terms and conditions specified in Attachment 6.

1.6.5 If <<customer_name>> modifies an order (Order Modification Charge (OMC)) after being sent a Firm Order Confirmation (FOC) from BellSouth, any costs incurred by BellSouth to accommodate the modification will be paid by <<customer_name>> in accordance with FCC No. 1 Tariff, Section 5.

1.6.6 A one-month minimum billing period shall apply to all UNE conversions or new installations.

2. **Unbundled Loops**

2.1 **General**

2.1.1 The local loop Network Element ("Loop") is defined as a transmission facility between a distribution frame (or its equivalent) in BellSouth's central office and the loop demarcation point at an end-user customer premises, including inside wire owned by BellSouth. The local loop Network Element includes all features, functions, and capabilities of the transmission facilities, including dark fiber and attached electronics (except those used for the provision of advanced services, such as Digital Subscriber Line Access Multiplexers) and line conditioning.

- 2.1.2 The provisioning of a Loop to <<customer_name>>'s collocation space will require cross-office cabling and cross-connections within the central office to connect the Loop to a local switch or to other transmission equipment. These cross-connects are separate components, that are not considered a part of the Loop, and thus, have a separate charge.
- 2.1.3 To the extent available within BellSouth's network at a particular location, BellSouth will offer Loops capable of supporting telecommunications services. If a requested loop type is not available, and cannot be made available through BellSouth's Unbundled Loop Modification process, then <<customer_name>> can use the Special Construction process to request that BellSouth place facilities in order to meet <<customer_name>>'s loop requirements. Standard Loop intervals shall not apply to the Special Construction process.
- 2.1.4 Where facilities are available, BellSouth will install Loops in compliance with BellSouth's Products and Services Interval Guide available at the website at <http://www.interconnection.bellsouth.com>. For orders of 15 or more Loops, the installation and any applicable Order Coordination as described below will be handled on a project basis, and the intervals will be set by the BellSouth project manager for that order. When Loops require a Service Inquiry (SI) prior to issuing the order to determine if facilities are available, the interval for the SI process is separate from the installation interval.
- 2.1.5 The Loop shall be provided to <<customer_name>> in accordance with BellSouth's TR73600 Unbundled Local Loop Technical Specification, incorporated herein by this reference and applicable industry standard technical references.
- 2.1.6 <<customer_name>> may utilize the unbundled Loops to provide any telecommunications service it wishes, so long as such services are consistent with industry standards and BellSouth's TR73600.
- 2.1.7 BellSouth will only provision, maintain and repair the Loops to the standards that are consistent with the type of Loop ordered. In those cases where <<customer_name>> has requested that BellSouth modify a Loop so that it no longer meets the technical parameters of the original Loop type (e.g., voice grade, ISDN, ADSL, etc.) the resulting Loop will be maintained as an unbundled copper Loop (UCL), and <<customer_name>> shall pay the recurring and non-recurring charges for a UCL. For non-service specific loops (e.g. UCL, Loops modified by <<customer_name>> using the Unbundled Loop Modification (ULM) process), BellSouth will only support that the Loop has copper continuity and balanced tip-and-ring.
- 2.1.8 **Loop Testing/Trouble Reporting**

- 2.1.8.1 <<customer_name>> is responsible for testing and isolating troubles on the Loops. <<customer_name>> must test and isolate trouble to the BellSouth portion of a designed unbundled loop (e.g., UVL-SL2, UCL-D, etc.) before reporting repair to the UNE Center. At the time of the trouble report, <<customer_name>> will be required to provide the results of the <<customer_name>> test which indicate a problem on the BellSouth provided loop.
- 2.1.8.2 Once <<customer_name>> has isolated a trouble to the BellSouth provided Loop, and had issued a trouble report to BellSouth on the Loop, BellSouth will take the actions necessary to repair the Loop if a trouble actually exists. BellSouth will repair these Loops in the same time frames that BellSouth repairs similarly situated Loops to its end users.
- 2.1.8.3 If <<customer_name>> reports a trouble on a non-designed loop (e.g., UVL-SL1, UCL-ND, etc.) and no trouble actually exists, BellSouth will charge <<customer_name>> for any dispatching and testing (both inside and outside the CO) required by BellSouth in order to confirm the loop's working status.
- 2.1.9 **Order Coordination and Order Coordination-Time Specific**
- 2.1.9.1 "Order Coordination" (OC) allows BellSouth and <<customer_name>> to coordinate the installation of the SL2 Loops, Unbundled Digital Loops (UDL) and other Loops where OC may be purchased as an option, to <<customer_name>>'s facilities to limit end user service outage. OC is available when the Loop is provisioned over an existing circuit that is currently providing service to the end user. OC for physical conversions will be scheduled at BellSouth's discretion during normal working hours on the committed due date. OC shall be provided in accordance with the chart set forth below.
- 2.1.9.2 "Order Coordination – Time Specific" (OC-TS) allows <<customer_name>> to order a specific time for OC to take place. BellSouth will make every effort to accommodate <<customer_name>>'s specific conversion time request. However, BellSouth reserves the right to negotiate with <<customer_name>> a conversion time based on load and appointment control when necessary. This OC-TS is a chargeable option for all Loops except Unbundled Copper Loops (UCL) and Universal Digital Channel (UDC), and is billed in addition to the OC charge. <<customer_name>> may specify a time between 9:00 a.m. and 4:00 p.m. (location time) Monday through Friday (excluding holidays). If <<customer_name>> specifies a time outside this window, or selects a time or quantity of Loops that requires BellSouth technicians to work outside normal work hours, overtime charges will apply in addition to the OC and OC-TS charges. Overtime charges will be applied based on the amount of overtime worked and in accordance with the rates established in the E Access Tariff,

Section E13.2, for Tennessee. . The OC-TS charges for an order due on the same day at the same location will be applied on a per Local Service Request (LSR) basis.

| | Order Coordination (OC) | Order Coordination – Time Specific (OC-TS) | Test Points | DLR | Charge for Dispatch and Testing if No Trouble Found |
|--|---|---|------------------------------|---|--|
| SL-1 | Chargeable Option | Chargeable Option | Not available | Chargeable Option – ordered as Engineering Information Document | Charged for Dispatch inside and outside Central Office |
| UCL-ND | Chargeable Option | Not Available | Not Available | Chargeable Option – ordered as Engineering Information Document | Charged for Dispatch inside and outside Central Office |
| SL-2 | Included | Chargeable Option | Included | Included | Charged for Dispatch outside Central Office |
| Unbundled Digital Loop | Included | Chargeable Option (except on Universal Digital Channel) | Included (where appropriate) | Included | Charged for Dispatch outside Central Office |
| Unbundled Copper Loop | Chargeable in accordance with Section 2 | Not available | Included | Included | Charged for Dispatch outside Central Office |
| For UVL-SL1 and UCLs, <<customer_name>> must order and will be billed for both OC and OC-TS if requesting OC-TS. | | | | | |

2.2 **Unbundled Voice Loops (UVLs)**

2.2.1 BellSouth shall make available the following UVLs:

2.2.1.1 2-wire Analog Voice Grade Loop – SL1

2.2.1.2 2-wire Analog Voice Grade Loop – SL2

2.2.1.3 4-wire Analog Voice Grade Loop

- 2.2.2 Unbundled Voice Loops (UVL) may be provisioned using any type of facility that will support voice grade services. This may include loaded copper, non-loaded copper, digital loop carrier systems, fiber or a combination of any of these facilities. BellSouth, in the normal course of maintaining, repairing, and configuring its network, may also change the facilities that are used to provide any given voice grade circuit. This change may occur at any time. In these situations, BellSouth will only ensure that the newly provided facility will support voice grade services. BellSouth will not guarantee that <<customer_name>> will be able to continue to provide any advanced services over the new facility. BellSouth will offer UVL in two different service levels - Service Level One (SL1) and Service Level Two (SL2).
- 2.2.3 Unbundled Voice Loop - SL1 (UVL-SL1) loops are 2-wire loop start circuits, will be non-designed, and will not have remote access test points. OC will be offered as a chargeable option on SL1 loops when reuse of existing facilities is appropriate. . <<customer_name>> may also order OC-TS when a specified conversion time is requested. OC-TS is a chargeable option for any coordinated order and is billed in addition to the OC charge. An Engineering Information (EI) document can be ordered as chargeable option. The EI document provides loop make up information that is similar to the information normally provided in a Design Layout Record. Upon issuance of a non-coordinated order in the service order system, SL1 loops will be activated on the due date in the same manner and time frame that BellSouth normally activates POTS-type loops for its end users.
- 2.2.4 Unbundled Voice Loop – SL2 (UVL-SL2) loops may be 2-wire or 4-wire circuits, shall have remote access test points, and will be designed with a Design Layout Record provided to <<customer_name>>. SL2 circuits can be provisioned with loop start, ground start or reverse battery signaling. OC is provided as a standard feature on SL2 loops. The OC feature will allow <<customer_name>> to coordinate the installation of the loop with the disconnection of an existing customer's service and/or number portability service. In these cases, BellSouth will perform the order conversion with standard order coordination at its discretion during normal work hours.
- 2.3 **Unbundled Digital Loops**
- 2.3.1 BellSouth will offer Unbundled Digital Loops (UDL). UDLs are service specific, will be designed, will be provisioned with test points (where appropriate), and will come standard with OC and a Design Layout Record (DLR). The various UDLs are intended to support a specific digital transmission scheme or service.
- 2.3.2 BellSouth shall make available the following UDLs:
- 2.3.2.1 2-wire Unbundled ISDN Digital Loop

- 2.3.2.2 2-wire Universal Digital Channel (IDSL Compatible)
- 2.3.2.3 2-wire Unbundled ADSL Compatible Loop
- 2.3.2.4 2-wire Unbundled HDSL Compatible Loop
- 2.3.2.5 4-wire Unbundled HDSL Compatible Loop
- 2.3.2.6 4-wire Unbundled DS1 Digital Loop
- 2.3.2.7 4-wire Unbundled Digital Loop/DS0 – 64 kbps, 56 kbps and below
- 2.3.2.8 DS3 Loop
- 2.3.2.9 STS-1 Loop
- 2.3.2.10 OC3 Loop
- 2.3.2.11 OC12 Loop
- 2.3.2.12 OC48 Loop
- 2.3.3 2-Wire Unbundled ISDN Digital Loops will be provisioned according to industry standards for 2-Wire Basic Rate ISDN services and will come standard with a test point, Order Coordination, and a DLR. <<customer_name>> will be responsible for providing BellSouth with a Service Profile Identifier (SPID) associated with a particular ISDN-capable loop and end user. With the SPID, BellSouth will be able to adequately test the circuit and ensure that it properly supports ISDN service. BellSouth will not reconfigure its ISDN-capable loop to support IDSL service.
- 2.3.3.1 The Universal Digital Channel (UDC) (also known as IDSL-compatible Loop) is intended to be compatible with IDSL service and has the same physical characteristics and transmission specifications as BellSouth's ISDN-capable loop. These specifications are listed in BellSouth's TR73600.
- 2.3.3.2 The UDC may be provisioned on copper or through a Digital Loop Carrier (DLC) system. When UDC Loops are provisioned using a DLC system, the Loops will be provisioned on time slots that are compatible with data-only services such as IDSL.
- 2.3.4 2-Wire ADSL-Compatible Loop. This is a designed loop that is provisioned according to Revised Resistance Design (RRD) criteria and may be up to 18kft long and may have up to 6kft of bridged tap (inclusive of loop length). The loop is a 2-wire circuit and will come standard with a test point, Order Coordination, and a DLR.

- 2.3.5 2-Wire or 4-Wire HDSL-Compatible Loop. This is a designed loop that is provisioned according to Carrier Serving Area (CSA) criteria and may be up to 12,000 feet long and may have up to 2,500 feet of bridged tap (inclusive of loop length). It may be a 2-wire or 4-wire circuit and will come standard with a test point, Order Coordination, and a DLR.
- 2.3.6 4-Wire Unbundled DS1 Digital Loop. This is a designed 4-wire loop that is provisioned according to industry standards for DS1 or Primary Rate ISDN services and will come standard with a test point, Order Coordination, and a DLR.
- 2.3.7 4-Wire Unbundled Digital/DS0 Loop. These are designed 4-wire loops that may be configured as 64kbps, 56kbps, 19kbps, and other sub-rate speeds associated with digital data services and will come standard with a test point, Order Coordination, and a DLR.
- 2.3.8 DS3 Loop. DS3 Loop is a two-point digital transmission path, which provides for simultaneous two-way transmission of serial, bipolar, return-to-zero isochronous digital electrical signals at a transmission rate of 44.736 megabits per second (Mbps) that is dedicated to the use of the ordering CLEC in its provisioning of local exchange and associated exchange access services. It may provide transport for twenty-eight (28) DS1 channels, each of which provides the digital equivalent of twenty-four analog voice grade channels. The interface to unbundled dedicated DS3 transport is a metallic-based electrical interface.
- 2.3.9 STS-1 Loop. STS-1 Loop is a high-capacity digital transmission path with SONET VT1.5 mapping that is dedicated for the use of the ordering customer for the purpose of provisioning local exchange and associated exchange access services. It is a two-point digital transmission path, which provides for simultaneous two-way transmission of serial bipolar return-to-zero synchronous digital electrical signals at a transmission rate of 51.84 megabits per second (Mbps). It may provide transport for twenty-eight (28) DS1 channels, each of which provides the digital equivalent of twenty-four analog voice grade channels. The interface to unbundled dedicated STS-1 transport is a metallic-based electrical interface.
- 2.3.10 OC3 Loop/OC12 Loop/OC48 Loop. OC3/OC-12/OC-48 Loops are optical two-point transmission paths that are dedicated to the use of the ordering CLEC in its provisioning of local exchange and associated exchange access services. The physical interface for all optical transport is optical fiber. This interface standard allows for transport of many different digital signals using a basic building block or base transmission rate of 51.84 megabits per second (Mbps). Higher rates are direct multiples of the base rate. The following rates are applicable: OC-3 - 155.52 Mbps; OC12 - 622.08 Mbps; and OC-48 - 2488 Mbps.

2.3.11 DS3 and above services come with a test point and a DLR. Mileage is airline miles, rounded up and a minimum of one mile applies. BellSouth TR 73501 LightGate® Service Interface and Performance Specifications, Issue D, June 1995 applies to DS3 and above services.

2.4 **Unbundled Copper Loops (UCL)**

2.4.1 BellSouth shall make available Unbundled Copper Loops (UCLs). The UCL is a copper twisted pair Loop that is unencumbered by any intervening equipment (e.g., filters, load coils, range extenders, digital loop carrier, or repeaters) and is not intended to support any particular telecommunications service. The UCL will be offered in two types – Designed and Non-Designed.

2.4.2 **Unbundled Copper Loop – Designed (UCL-D)**

2.4.2.1 The UCL-D will be provisioned as a dry copper twisted pair loop that is unencumbered by any intervening equipment (e.g., filters, load coils, range extenders, digital loop carrier, or repeaters). The UCL-D will be offered in two versions - Short and Long.

2.4.2.2 A short UCL-D (18,000 feet or less) is provisioned according to Resistance Design parameters, may have up to 6,000 feet of bridged tap and will have up to 1300 ohms of resistance.

2.4.2.3 The long UCL-D (beyond 18,000 feet) is provisioned as a dry copper twisted pair longer than 18,000 feet and may have up to 12,000 feet of bridged tap and up to 2800 ohms of resistance.

2.4.2.4 The UCL-D is a designed circuit, is provisioned with a test point and comes standard with a DLR. OC is required on UCLs where a reuse of existing facilities has been requested by <<customer_name>>.

2.4.2.5 These loops are not intended to support any particular services and may be utilized by <<customer_name>> to provide a wide-range of telecommunications services so long as those services do not adversely affect BellSouth's network. This facility will include a Network Interface Device (NID) at the customer's location for the purpose of connecting the loop to the customer's inside wire.

2.4.2.6 BellSouth will make available the following UCL-Ds:

2.4.2.6.1 2-Wire UCL-D/short

2.4.2.6.2 2-Wire UCL-D/long

2.4.2.6.3 4-Wire UCL-D/short

2.4.2.6.4 4-Wire UCL-D/long

2.4.3 **Unbundled Copper Loop – Non-Designed (UCL-ND)**

2.4.3.1 The UCL-ND is provisioned as a dedicated 2-wire metallic transmission facility from BellSouth's Main Distribution Frame to a customer's premises (including the NID). The UCL-ND will be a "dry copper" facility in that it will not have any intervening equipment such as load coils, repeaters, or digital access main lines ("DAMLs"), and may have up to 6,000 feet of bridged tap between the end user's premises and the serving wire center. The UCL-ND typically will be 1300 Ohms resistance and in most cases will not exceed 18,000 feet in length, although the UCL-ND will not have a specific length limitation. For loops less than 18,000 feet and with less than 1300 Ohms resistance, the loop will provide a voice grade transmission channel suitable for loop start signaling and the transport of analog voice grade signals. The UCL-ND will not be designed and will not be provisioned with either a DLR or a test point.

2.4.3.2 The UCL-ND facilities may be mechanically assigned using BellSouth's assignment systems. Therefore, the Loop Make Up process is not required to order and provision the UCL-ND. However, <<customer_name>> can request Loop Make Up for which additional charges would apply.

2.4.3.3 At an additional charge, BellSouth also will make available Loop Testing so that <<customer_name>> may request further testing on the UCL-ND.

2.4.3.4 UCL-ND loops are not intended to support any particular service and may be utilized by <<customer_name>> to provide a wide-range of telecommunications services so long as those services do not adversely affect BellSouth's network. The UCL-ND will include a Network Interface Device (NID) at the customer's location for the purpose of connecting the loop to the customer's inside wire.

2.4.3.5 Order Coordination (OC) will be provided as a chargeable option and may be utilized when the UCL-ND provisioning is associated with the reuse of BellSouth facilities. Order Coordination -Time Specific (OC-TS) does not apply to this product.

2.4.3.6 <<customer_name>> may use BellSouth's Unbundled Loop Modification (ULM) offering to remove bridge tap and/or load coils from any loop within the BellSouth network. Therefore, some loops that would not qualify as UCL-ND could be transformed into loops that do qualify, using the ULM process.

2.5 **Unbundled Loop Modifications (Line Conditioning)**

2.5.1 Line Conditioning is defined as the removal from the Loop of any devices that may diminish the capability of the Loop to deliver high-speed switched wireline

telecommunications capability, including xDSL service. Such devices include, but are not limited to, load coils, bridged taps, low pass filters, and range extenders.

- 2.5.2 BellSouth shall condition Loops, as requested by <<customer_name>>, whether or not BellSouth offers advanced services to the End User on that Loop.
- 2.5.3 In some instances, <<customer_name>> will require access to a copper twisted pair loop unfettered by any intervening equipment (e.g., filters, load coils, range extenders, etc.), so that <<customer_name>> can use the loop for a variety of services by attaching appropriate terminal equipment at the ends. <<customer_name>> will determine the type of service that will be provided over the loop. BellSouth's Unbundled Loop Modifications (ULM) process will be used to determine the costs and feasibility of conditioning the loops as requested. Rates for ULM are as set forth in Exhibit B of this Attachment.
- 2.5.4 In those cases where <<customer_name>> has requested that BellSouth modify a Loop so that it no longer meets the technical parameters of the original Loop type (e.g., voice grade, ISDN, ADSL, etc.) the resulting modified Loop will be ordered and maintained as a UCL.
- 2.5.5 The Unbundled Loop Modifications (ULM) offering provides the following elements: 1) removal of devices on 2-wire or 4-wire Loops equal to or less than 18,000 feet; 2) removal of devices on 2-wire or 4-wire Loops longer than 18,000 feet; and 3) removal of bridged-taps on loops of any length.
- 2.5.6 <<customer_name>> shall request Loop make up information pursuant to this Attachment prior to submitting a service inquiry and/or a LSR for the Loop type that <<customer_name>> desires BellSouth to condition.
- 2.6 **Loop Provisioning Involving Integrated Digital Loop Carriers**
- 2.6.1 If the CLEC requests one or more loops served by an Integrated Digital Loop Carrier system ("IDLC"), BellSouth shall unbundle the IDLC-delivered loop, as soon as practicable, using one of the following alternative arrangements: (1) utilize existing Next Generation Digital Loop Carrier ("NGDLC") facilities; (2) utilize existing Universal Digital Loop Carrier ("UDLC"); (3) utilize existing copper facilities that serve the distribution area or allocate new copper feeder pairs to the distribution area if spare capacity is available in the feeder route or carrier serving area; (4) utilize spare capacity of existing Integrated Network Access system or other existing IDLC that is terminated on a digital cross-connect system; (5) utilize side-door/hairpin capability of switch peripheral if the serving IDLC is terminated on a peripheral with those capabilities, or if spare capacity is available on a switch peripheral; (6) activate new IDLC or NGDLC capacity to the distribution area; or (7) convert some existing IDLC capacity to UDL. These

alternative arrangements will be used where available to permit the CLEC to order a Loop and to provide the CLEC with the capability to serve end users at the same level BellSouth provides its retail customers, to the extent technically feasible. Pursuant to the Authority's Order, the rates in Exhibit B assume a network where 70.83% of its loops or its Combinations of loops and ports are delivered via IDLC. When possible, CLEC-1 will be allowed to choose between the available alternative arrangements listed above.

2.7 **Network Interface Device (NID)**

2.7.1 The NID is defined as any means of interconnection of end-user customer premises wiring to BellSouth's distribution plant, such as a cross-connect device used for that purpose. The NID is a single-line termination device or that portion of a multiple-line termination device required to terminate a single line or circuit at the premises. The NID features two independent chambers or divisions that separate the service provider's network from the end user's customer-premises wiring. Each chamber or division contains the appropriate connection points or posts to which the service provider and the end user each make their connections. The NID provides a protective ground connection and is capable of terminating cables such as twisted pair cable.

2.7.1.1 BellSouth shall permit <<customer_name>> to connect <<customer_name>>'s Loop facilities the end-user's customer-premises wiring through the BellSouth NID or at any other technically feasible point.

2.7.2 **Access to NID**

2.7.2.1 <<customer_name>> may access the end user's customer-premises wiring by any of the following means and <<customer_name>> shall not disturb the existing form of electrical protection and shall maintain the physical integrity of the NID:

2.7.2.1.1 1) BellSouth shall allow <<customer_name>> to connect its loops directly to BellSouth's multi-line residential NID enclosures that have additional space and are not used by BellSouth or any other telecommunications carriers to provide service to the premises.

2.7.2.1.2 2) Where an adequate length of the end user's customer premises wiring is present and environmental conditions permit, either Party may remove the customer premises wiring from the other Party's NID and connect such wiring to that Party's own NID;

2.7.2.1.3 3) Enter the subscriber access chamber or dual chamber NID enclosures for the purpose of extending a connect divisioned or spliced jumper wire from the customer premises wiring through a suitable "punch-out" hole of such NID enclosures; or

- 2.7.2.1.4 4) Request BellSouth to make other rearrangements to the end user customer premises wiring terminations or terminal enclosure on a time and materials cost basis.
- 2.7.2.2 Upon prior notice to the other Party, either Party may remove or disconnect the other Party's loop facilities from either Party's NIDs, enclosures, or protectors. In such cases, it shall be the responsibility of the Party disconnecting loop facilities to leave undisturbed the existing form of electrical protection and to maintain the physical integrity of the NID. It will be <<customer_name>>'s responsibility to ensure there is no safety hazard and will hold BellSouth harmless for any liability associated with the removal of the BellSouth loop from the BellSouth NID. Furthermore, it shall be the responsibility of the disconnecting Party, once the other Party's loop has been disconnected from the NID, to reconnect the disconnected loop to a nationally recognized testing laboratory listed station protector, which has been grounded as per Article 800 of the National Electrical Code. If no spare station protector exists in the NID, the disconnected loop must be appropriately cleared, capped and stored.
- 2.7.2.3 In no case shall either Party remove or disconnect ground wires from BellSouth's NIDs, enclosures, or protectors.
- 2.7.2.4 In no case shall either Party remove or disconnect NID modules, protectors, or terminals from BellSouth's NID enclosures.
- 2.7.2.5 Due to the wide variety of NID enclosures and outside plant environments, BellSouth will work with <<customer_name>> to develop specific procedures to establish the most effective means of implementing this section if the procedures set forth herein do not apply to the NID in question.
- 2.7.3 Technical Requirements
- 2.7.3.1 The NID shall provide an accessible point of interconnection and shall maintain a connection to ground.
- 2.7.3.2 If an existing NID is accessed, it shall be capable of transferring electrical analog or digital signals between the end user's customer premises and the Distribution Media and/or cross connect to <<customer_name>>'s NID.
- 2.7.3.3 Existing BellSouth NIDS will be provided in "as is" condition. <<customer_name>> may request BellSouth do additional work to the NID on a time and material basis. When <<customer_name>> deploys its own local loops with respect to multiple-line termination devices, <<customer_name>> shall specify the quantity of NIDs connections that it requires within such device.
- 2.8 **Sub-loop Elements**

2.8.1 Where facilities permit, BellSouth shall offer access to its Unbundled Sub Loop (USL) and Unbundled Sub-loop Concentration (USLC) System.

2.8.2 **Unbundled Sub-Loop Distribution**

2.8.2.1 The unbundled sub-loop distribution facility is a dedicated transmission facility that BellSouth provides from an end user's point of demarcation to a BellSouth cross-connect device. The BellSouth cross-connect device may be located within a remote terminal (RT) or a stand-alone cross-box in the field or in the equipment room of a building. The unbundled sub-loop distribution media is a copper twisted pair that can be provisioned as a 2 Wire or 4 Wire facility. BellSouth will make the following available sub-loop distribution offerings where facilities permit:

Unbundled Sub-Loop Distribution – Voice Grade

Unbundled Copper Sub-Loop

Unbundled Sub-Loop Distribution – Intrabuilding Network Cable (aka riser cable)

2.8.2.2 Unbundled Sub-Loop Distribution – Voice Grade (USLD-VG) is a sub-loop facility from the cross-box in the field up to and including the point of demarcation, at the end user's premises and may have load coils.

2.8.2.3 Unbundled Copper Sub-Loop (UCSL) is a copper facility of any length provided from the cross-box in the field up to and including the end-user's point of demarcation. If available, this facility will not have any intervening equipment such as load coils between the end-user and the cross-box.

2.8.2.4 If <<customer_name>> requests a UCSL and it is not available, <<customer_name>> may request the Sub-Loop facility be modified pursuant to the ULM process request to remove load coils and/or bridged taps. If load coils and/or bridged taps are removed, the facility will be classified as a UCSL.

2.8.2.5 Unbundled Sub-Loop Distribution – Intrabuilding Network Cable (USLD-INC) is the distribution facility inside a building or between buildings on the same continuous property that is not separated by a public street or road. USLD-INC includes the facility from the cross-connect device in the building equipment room up to and including the point of demarcation, at the end user's premises.

2.8.2.6 BellSouth will install a cross connect panel in the building equipment room for the purpose of accessing USLD-INC pairs from a building equipment room. The cross-connect panel will function as a single point of interconnection (SPOI) for USLD-INC and will be accessible by multiple carriers as space permits. BellSouth will place cross-connect blocks in 25-pair increments for <<customer_name>>'s use on this cross-connect panel. <<customer_name>> will be responsible for connecting its facilities to the 25-pair cross-connect block(s).

- 2.8.2.7 Unbundled Sub-Loop distribution facilities shall support functions associated with provisioning, maintenance and testing of the Unbundled Sub-Loop. For access to Voice Grade USLD and UCSL, <<customer_name>> shall install a cable to the BellSouth cross-box pursuant to the terms and conditions for physical collocation for remote sites set forth in this Agreement. This cable will be connected within the BellSouth cross-box by a BellSouth technician during the set-up process. <<customer_name>>'s cable pairs can then be connected to BellSouth's USL within the BellSouth cross-box by the BellSouth technician.
- 2.8.2.8 Through the Service Inquiry (SI) process, BellSouth will determine whether access to Unbundled Sub-Loops at the location requested by <<customer_name>> is technically feasible and whether sufficient capacity exists in the cross-box. If existing capacity is sufficient to meet <<customer_name>>'s request, then BellSouth will perform the site set-up as described in Section 2.8.2.9. If any work must be done to modify existing BellSouth facilities or add new facilities (other than adding the cross-connect panel in a building equipment room as noted in Section 2.8.2.9) to accommodate <<customer_name>>'s request for Unbundled Sub-Loops, <<customer_name>> may request BellSouth's Special Construction (SC) process to determine additional costs required to provision the Unbundled Sub-Loops. <<customer_name>> will have the option to proceed under the SC process to modify the BellSouth facilities.
- 2.8.2.9 The site set-up must be completed before <<customer_name>> can order sub-loop pairs. For the site set-up in a BellSouth cross-connect box in the field, BellSouth will perform the necessary work to splice <<customer_name>>'s cable into the cross-connect box. For the site set-up inside a building equipment room, BellSouth will perform the necessary work to install the cross-connect panel and the connecting block(s) that will be used to provide access to the requested USLs.
- 2.8.2.10 Once the site set-up is complete, <<customer_name>> will request sub-loop pairs through submission of a Local Service Request (LSR) form to the Local Carrier Service Center (LCSC). Order Coordination is required with USL pair provisioning when <<customer_name>> requests reuse of an existing facility and is in addition to the USL pair rate. For expedite requests by <<customer_name>> for sub-loop pairs, expedite charges will apply for intervals less than 5 days.
- 2.8.2.11 Unbundled Sub-Loops will be provided in accordance with technical reference TR73600.
- 2.8.3 **Unbundled Network Terminating Wire (UNTW)**
- 2.8.3.1 Unbundled Network Terminating Wire (UNTW) is unshielded twisted copper wiring that is used to extend circuits from an intra-building network cable terminal or from a building entrance terminal to an individual customer's point of

demarcation. It is the final portion of the Loop which, in multi-subscriber configurations, represents the point at which the network branches out to serve individual subscribers.

- 2.8.3.2 This element will be provided in Multi-Dwelling Units (MDUs) and/or Multi-Tenants Units (MTUs) where BellSouth owns wiring all the way to the end-users premises. BellSouth will not provide this element in those locations where the property owner provides its own wiring to the end-user's premises, where a third party owns the wiring to the end-user's premises or where the property owner will not allow BellSouth to place its facilities to the end user. The demarcation point in multiunit premises shall be established consistent with the rules of the FCC promulgated in Docket 88-57.
- 2.8.3.3 Requirements
 - 2.8.3.3.1 On a multi-unit premises, upon request of the other Party ("Requesting Party"), the Party owning the network terminating wire will provide access to UNTW pairs on an Access Terminal that is suitable for use by multiple carriers at each Garden Terminal or Wiring Closet.
 - 2.8.3.3.2 The Provisioning Party shall not be required to install new or additional NTW beyond existing NTW to provision the services of the Requesting Party.
 - 2.8.3.3.3 Upon receipt of the UNTW Service Inquiry (SI) requesting access to the Provisioning Party's UNTW pairs at a multi-unit premises, representatives of both Parties will participate in a meeting at the site of the requested access. The purpose of the site visit will include discussion of the procedures for installation and location of the Access Terminals. By request of the Requesting Party, an Access Terminal will be installed either adjacent to each Provisioning Party's Garden Terminal or inside each Wiring Closet. Requesting Party will deliver and connect its central office facilities to the UNTW pairs within the Access Terminal. Requesting Party may access any available pair on an Access Terminal. A pair is available when a pair is not being utilized to provide service or where the end user has requested a change in its local service provider to the Requesting Party. Prior to connecting Requesting Party's service on a pair previously used by Provisioning Party, Requesting Party is responsible for ensuring the end-user is no longer using Provisioning Party's service or another CLEC's service before accessing UNTW pairs.
 - 2.8.3.3.4 Access Terminal installation intervals will be established on an individual case basis.
 - 2.8.3.3.5 Requesting Party is responsible for obtaining the property owner's permission for Provisioning Party to install an Access Terminal(s) on behalf of the Requesting Party. The submission of the SI by the Requesting Party will serve as certification

by the Requesting Party that such permission has been obtained. If the property owner objects to Access Terminal installations that are in progress or subsequent to completion and demands removal of Access Terminals, Requesting Party will be responsible for costs associated with removing Access Terminals and restoring property to its original state prior to Access Terminals being installed.

- 2.8.3.3.6 The Requesting Party shall indemnify and hold harmless the Provisioning Party against any claims of any kind that may arise out of the Requesting Party's failure to obtain the property owner's permission. Requesting Party will be billed for non-recurring and recurring charges for accessing UNTW pairs at the time the Requesting Party activates the pair(s). The Requesting Party will notify the Provisioning Party each time it activates UNTW pairs using the LSR form.
- 2.8.3.3.7 Requesting Party will isolate and report troubles in the manner specified by the Provisioning Party. Requesting Party must tag the UNTW pair that requires repair. If Provisioning Party dispatches a technician on a reported trouble call and no UNTW trouble is found, Provisioning Party will charge Requesting Party for time spent on the dispatch and testing the UNTW pair(s).
- 2.8.3.3.8 If Requesting Party initiates the Access Terminal installation and the Requesting Party has not activated at least one pair on the Access Terminal installed pursuant to Requesting Party's request for an Access Terminal within 6 months of installation of the Access Terminal, Provisioning Party will bill Requesting Party a non-recurring charge equal to the actual cost of provisioning the Access Terminal.
- 2.8.3.3.9 If Provisioning Party determines that Requesting Party is using the UNTW pairs without reporting the activation of the pairs, the following charges shall apply:
 - 2.8.3.3.9.1 If Requesting Party issued a LSR to disconnect an end-user from Provisioning Party in order to use a UNTW pair, Requesting Party will be billed for the use of the pair back to the disconnect order date.
 - 2.8.3.3.9.2 If Requesting Party activated a UNTW pair on which Provisioning Party was not previously providing service, Requesting Party will be billed for the use of that pair back to the date the end-user began receiving service using that pair. Upon request, Requesting Party will provide copies of its billing record to substantiate such date. If Requesting Party fails to provide such records, then Provisioning Party will bill the Requesting Party back to the date of the Access Terminal installation.
- 2.8.3.3.10 Upon <<customer name's>>written request for identification of the demarcation point or points within a specific, addressed multiunit location, BellSouth must, within 48 hours, provide <<customer name>> with any existing written evidence and documentation stating how the demarcation point was determined and

certifying that the demarcation point was established in accordance with the rules of the FCC promulgated in Docket 88-57. Written documentation includes reducing to writing and certifying any oral representations made to BellSouth by building owners concerning demarcation points. If written documentation does not exist, BellSouth should provide a contact name and telephone number of the appropriate BellSouth outside plant staff and building or property owner.

- 2.8.3.3.11 Should <<customer name>, after receiving BellSouth's response and documentation, believe that the demarcation point for a particular customer location was not established in accordance with applicable FCC rules, <<customer name>> may petition the TRA or other appropriate regulatory or legal agency for resolution of the complaint.
- 2.8.3.3.12 BellSouth shall, for all wiring installed or relocated within premises subject to FCC Docket 88-57, maintain documentation describing how demarcation points have been established within the specific premises. The documentation should certify that said demarcation points were established in accordance with applicable FCC rules, and an authorized representative of the property owner shall sign the documentation. Upon request, this documentation shall be provided to <<customer name>> in accordance with subsection 2.8.3.3.10 above.
- 2.8.3.3.13 Upon establishment of BellSouth's ownership of INC or NTW within a specific multiunit premises, <<customer name>> may submit its written request for access to these items on an unbundled basis. The Parties agree to discuss the appropriate provisioning processes for providing access to INC or NTW and appropriate recurring and nonrecurring charges thereof. Further, the Parties agree to promptly amend this Agreement to implement any mutual agreement of the Parties with regard to provisioning and/or pricing. If within ninety (90) days after submission of a request for access from <<customer name>>, BellSouth and <<customer name>> are unable to reach agreement on provisioning and pricing for access to INC and NTW, either Party may petition the TRA to establish reasonable provisioning processes and to set interim, or depending on the status of pricing proceedings in Tennessee, permanent rates for these items on an unbundled basis. In instances where BellSouth owns the INC or NTW within a multi-unit building, and <<customer name>> has purchased a loop from BellSouth to serve an end user customer in that building, a separate rate need not be established for INC or NTW because they are part of the facilities for which loop rates are established.
- 2.8.3.3.14 In accordance with the Section 10 of the General Terms and Conditions of this Agreement, all confidential and proprietary information, including but not limited to requests for <<customer name>> for information and/or documentation regarding the location of demarcation points for a specific, addressed location, shall be protected from disclosure or dissemination and specifically shall not be

disclosed by BellSouth to its retail arm, including but not limited to sales and marketing personnel.

2.8.4 **Unbundled Sub-Loop Feeder**

2.8.4.1 Unbundled Sub-Loop Feeder (USLF) provides connectivity between BellSouth's central office and cross-box (or other access point) that serves an end user location.

2.8.4.2 USLF utilized for voice traffic can be configured as 2-wire voice (USLF-2W/V) or 4-wire voice (USLF-4W/V).

2.8.4.3 USLF utilized for digital traffic can be configured as 2-wire ISDN (USLF-2W/I); 2-wire Copper (USLF-2W/C); 4-wire Copper (USLF-4W/C); 4-wire DS0 level loop (USLF-4W/D0); or 4-wire DS1 and ISDN (USLF-4W/DI).

2.8.4.4 USLF will provide access to both the equipment and the features in the BellSouth central office and BellSouth cross box necessary to provide a 2W or 4W communications pathway from the BellSouth central office to the BellSouth cross-box. This element will allow for the connection of <<customer_name>>'s loop distribution elements onto BellSouth's feeder system.

2.8.4.5 **Requirements**

2.8.4.5.1 <<customer_name>> will extend a compatible cable to BellSouth's cross-box. BellSouth will connect the cable to a panel inside the BellSouth cross-box to the requested level of feeder element. In those cases when there is no room in the BellSouth cross-box to accommodate the additional cross-connect panels mentioned above, BellSouth will utilize its Special Construction process to determine the costs to provide the sub-loop feeder element to <<customer_name>>. <<customer_name>> will then have the option of paying the special construction charges or canceling the order.

2.8.4.5.2 USLF will be a designed circuit and BellSouth will provide a Design Layout Record (DLR) for this element.

2.8.4.5.3 BellSouth will provide USLF elements in accordance with applicable industry standards for these types of facilities. Where industry standards do not exist, BellSouth's TR73600 will be used to determine performance parameters.

2.8.5 **Unbundled Loop Concentration (ULC)**

2.8.5.1 BellSouth will provide to <<customer_name>> Unbundled Loop Concentration (ULC). Loop concentration systems in the central office concentrate the signals transmitted over local loops onto a digital loop carrier system. The concentration

device is placed inside a BellSouth central office. BellSouth will offer ULC with a TR008 interface or a TR303 interface.

- 2.8.5.2 ULC will be offered in two system options. System A will allow up to 96 BellSouth loops to be concentrated onto two or more DS1s. The high-speed connection from the concentrator will be at the electrical DS1 level and will connect to <<customer_name>> at <<customer_name>>'s collocation site. System B will allow up to 192 BellSouth loops to be concentrated onto 4 or more DS1s. System A may be upgraded to a System B. A minimum of two DS1s is required for each system (i.e., System A requires two DS1s and System B would require an additional two DS1s or four in total). All DS1 interfaces will terminate to <<customer_name>>'s collocation space. ULC service is offered with concentration (2 DS1s for 96 channels) or without concentration (4 DS1s for 96 channels) and with or without protection. A Loop Interface element will be required for each loop that is terminated onto the ULC system.

2.8.6 **Unbundled Sub-Loop Concentration (USLC)**

- 2.8.6.1 Where facilities permit, <<customer_name>> may concentrate its sub-loops onto multiple DS1s back to the BellSouth Central Office.

- 2.8.6.2 USLC, using the Lucent Series 5 equipment, will be offered in two system options. System A will allow up to 96 of <<customer_name>>'s sub-loops to be concentrated onto two or more DS1s. System B will allow an additional 96 of <<customer_name>>'s sub-loops to be concentrated onto two or more additional DS1s. One System A may be supplemented with one System B and they both must be physically located in a single Series 5 dual channel bank. A minimum of two DS1s is required for each system (i.e., System A requires two DS1s and System B would require an additional two DS1s or four in total). The DS1 level facility that connects the Remote Terminal site with the serving wire center is known as a Feeder Interface. All DS1 Feeder Interfaces will terminate to <<customer_name>>'s demarcation point associated with <<customer_name>>'s collocation space within the SWC that serves the remote terminal (RT). USLC service is offered with or without concentration and with or without a protection DS1.

- 2.8.6.3 <<customer_name>> is required to deliver its sub-loops to its own cross-box, RT, or other similar device and deliver a single cable to the BellSouth RT. This cable shall be connected, by a BellSouth technician, to a cross-connect panel within the BellSouth RT/cross-box and shall allow <<customer_name>>'s sub-loops to be placed on the USLC and transported to <<customer_name>>'s collocation space at a DS1 level.

2.8.7 **Dark Fiber Loop**

- 2.8.7.1 Dark Fiber Loop is an unused optical transmission facility without attached signal regeneration, multiplexing, aggregation or other electronics that connects two points within BellSouth's network. Dark Fiber Loops may be strands of optical fiber existing in aerial or underground structure. BellSouth will not provide line terminating elements, regeneration or other electronics necessary for <<customer_name>> to utilize Dark Fiber Loops.
- 2.8.7.2 A Dark Fiber Loop is a point to point arrangement from an end user's premises connected via a cross connect to the demarcation point associated with <<customer_name>>'s collocation space in the end user's serving wire center.
- 2.8.7.3 Dark Fiber Loop rates are differentiated between Local Channel, Interoffice Channel and Local Loop.
- 2.8.7.4 Requirements
- 2.8.7.4.1 BellSouth shall make available Dark Fiber where it exists in BellSouth's network and where, as a result of future building or deployment, it becomes available. BellSouth may reserve a reasonable amount of Dark Fiber for future planned use.
- 2.8.7.4.2 If the requested dark fiber has any lightwave repeater equipment interspliced to it, BellSouth will remove such equipment at the CLEC's request subject to time and materials charges.
- 2.8.7.4.3 CLEC may test the quality of the Dark Fiber to confirm its usability and performance specifications. BellSouth shall use its best efforts to provide to the CLEC information regarding the location, availability and performance of Dark Fiber within ten (10) business days for a records based answer and twenty (20) business days for a field based answer, after receiving a request from the CLEC ("Request"). Within such time period, BellSouth shall send written confirmation of availability of the Dark Fiber ("Confirmation"). From the time of the Request to 45 days after Confirmation, BellSouth shall hold such requested Dark Fiber for the CLEC's use and may not allow any other party to use such media, including BellSouth.
- 2.8.7.4.4 BellSouth shall use its best efforts to make Dark Fiber available to the CLEC within thirty (30) business days after it receives written confirmation from the CLEC that the Dark Fiber previously deemed available by BellSouth is wanted for use by the CLEC. This includes identification of appropriate connection points (e.g., Light Guide Interconnection (LGX) or splice points) to enable the CLEC to connect or splice the CLEC provided transmission media (e.g., optical fiber) or equipment to the Dark Fiber.
- 2.8.7.4.5 Dark Fiber shall meet the manufacture's design specifications.

2.8.7.4.6 Additional Requirements for Dark Fiber

2.8.7.4.7 The CLEC may splice and test Dark Fiber obtained from BellSouth using the CLEC or CLEC's designated personnel. BellSouth shall provide appropriate interfaces to allow splicing and testing of Dark Fiber. BellSouth shall provide an excess cable length of 25 feet minimum (for fiber in underground conduit) to allow the uncoiled fiber to reach from the manhole to a splicing van.

2.9 **Loop Makeup (LMU)**

2.9.1 Description of Service

2.9.1.1 BellSouth shall make available to <<customer_name>> (LMU) information so that <<customer_name>> can make an independent judgment about whether the Loop is capable of supporting the advanced services equipment <<customer_name>> intends to install and the services <<customer_name>> wishes to provide. This section addresses LMU as a *preordering* transaction, distinct from <<customer_name>> ordering any other service(s). Loop Makeup *Service Inquiries (LMUSI) for preordering loop makeup* are likewise unique from other preordering functions with associated service inquiries (SI) as described in this Agreement.

2.9.1.2 BellSouth will provide <<customer_name>> LMU information consisting of the composition of the loop material (copper/fiber); the existence, location and type of equipment on the Loop, including but not limited to digital loop carrier or other remote concentration devices, feeder/distribution interfaces, bridged taps, load coils, pair-gain devices; the loop length; the wire gauge and electrical parameters.

2.9.1.3 BellSouth's LMU information is provided to <<customer_name>> as it exists either in BellSouth's databases or in its hard copy facility records. BellSouth does not guarantee accuracy or reliability of the LMU information provided.

2.9.1.4 <<customer_name>> may choose to use equipment that it deems will enable it to provide a certain type and level of service over a particular BellSouth Loop. The determination shall be made solely by <<customer_name>> and BellSouth shall not be liable in any way for the performance of the advanced data services provisioned over said Loop. The specific Loop type (ADSL, HDSL, or otherwise) ordered on the LSR must match the LMU of the loop reserved taking into consideration any requisite line conditioning. The LMU data is provided for informational purposes only and does not guarantee <<customer_name>>'s ability to provide advanced data services over the ordered loop type. Further, if <<customer_name>> orders loops that are not intended to support advanced services (such as UV-SL1, UV-SL2, or ISDN compatible loops) and that are not inventoried as advanced services loops, the LMU information for such loops is

subject to change at any time due to modifications and/or upgrades to BellSouth's network. <<customer_name>> is fully responsible for any of its service configurations that may differ from BellSouth's technical standard for the loop type ordered.

2.9.2 **Submitting Loop Makeup Service Inquiries**

2.9.2.1 <<customer_name>> may obtain LMU information by submitting a LMU Service Inquiry (LMUSI) mechanically or manually. Mechanized LMUSIs should be submitted through BellSouth's Operational Support Systems interfaces. After obtaining the Loop information from the mechanized LMUSI process, if <<customer_name>> needs further loop information in order to determine loop service capability, <<customer_name>> may initiate a separate Manual Service Inquiry for a separate nonrecurring charge as set forth in Exhibit B of this Attachment.

2.9.2.2 Manual LMUSIs shall be submitted by electronic mail to BellSouth's Complex Resale Support Group (CRSG)/Account Team utilizing the Preordering Loop Makeup Service Inquiry form. The service interval for the return of a Loop Makeup Manual Service Inquiry is three business days. Manual LMUSIs are not subject to expedite requests. This service interval is distinct from the interval applied to the subsequent service order.

2.9.3 **Loop Reservations**

2.9.3.1 For a Mechanized LMUSI, <<customer_name>> may reserve up to ten Loop facilities. For a Manual LMUSI, <<customer_name>> may reserve up to three Loop facilities.

2.9.3.2 <<customer_name>> may reserve facilities for up to four (4) business days for each facility requested on a LMUSI from the time the LMU information is returned to <<customer_name>>. During and prior to <<customer_name>> placing an LSR, the reserved facilities are rendered unavailable to other customers, including BellSouth. If <<customer_name>> does not submit an LSR for a UNE service on a reserved facility within the four-day reservation timeframe, the reservation of that spare facility will become invalid and the facility will be released.

2.9.3.3 Charges for preordering LMUSI are separate from any charges associated with ordering other services from BellSouth.

2.9.4 **Ordering of Other UNE Services**

2.9.4.1 All LSRs issued for reserved facilities shall reference the facility reservation number as provided by BellSouth. <<customer_name>> will not be billed any

additional LMU charges for the loop ordered on such LSR. If, however, <<customer_name>> does not reserve facilities upon an initial LMUSI, <<customer_name>>'s placement of an order for an advanced data service type facility will incur the appropriate billing charges to include service inquiry and reservation per Exhibit B of this Attachment.

- 2.9.4.2 Where <<customer_name>> has reserved multiple Loop facilities on a single reservation, <<customer_name>> may not specify which facility shall be provisioned when submitting the LSR. For those occasions, BellSouth will assign to <<customer_name>>, subject to availability, a facility that meets the BellSouth technical standards of the BellSouth type Loop as ordered by <<customer_name>>. If the ordered Loop type is not available, <<customer_name>> may utilize the Unbundled Loop Modification process or the Special Construction process, as applicable, to obtain the Loop type ordered.

3. High Frequency Spectrum Network Element

3.1 General

- 3.2 BellSouth shall provide <<customer_name>> access to the high frequency spectrum of the local loop as an unbundled network element only where BellSouth is the voice service provider to the end user at the rates set forth in this Attachment.

- 3.3 The High Frequency Spectrum is defined as the frequency range above the voiceband on a copper loop facility carrying analog circuit-switched voiceband transmissions. Access to the High Frequency Spectrum is intended to allow <<customer_name>> the ability to provide Digital Subscriber Line ("xDSL") data services to the end user for which BellSouth provides voice services. The High Frequency Spectrum shall be available for any version of xDSL complying with Spectrum Management Class 5 of ANSI T1.417, American National Standard for Telecommunications, Spectrum Management for Loop Transmission Systems. BellSouth will continue to have access to the low frequency portion of the loop spectrum (from 300 Hertz to at least 3000 Hertz, and potentially up to 3400 Hertz, depending on equipment and facilities) for the purposes of providing voice service. <<customer_name>> shall only use xDSL technology that is within the PSD mask for Spectrum Management Class 5 as found in the above-mentioned document.

- 3.4 Access to the High Frequency Spectrum requires an unloaded, 2-wire copper Loop. An unloaded Loop is a copper Loop with no load coils, low-pass filters, range extenders, DAMLs, or similar devices and minimal bridged taps consistent with ANSI T1.413 and T1.601.

- 3.5 BellSouth will provide Loop Modification to <<customer_name>> on an existing Loop in accordance with procedures developed in the Line Sharing Collaborative. High Frequency Spectrum (Central Office Based) Unbundled Loop Modification is a separate distinct service from Unbundled Loop Modification set forth in Section 2 of this Attachment. Procedures for High Frequency Spectrum (Central Office Based) Unbundled Loop Modification were developed in the Line Sharing Collaborative and may be found posted to the web at <http://www.interconnection.bellsouth.com/html/unes.html>. Nonrecurring rates for this UNE offering may be found in Exhibit B of this Attachment. BellSouth is not required to modify a Loop for access to the High Frequency spectrum if modification of that Loop significantly degrades BellSouth's voice service. If <<customer_name>> requests that BellSouth modify a Loop longer than 18,000 ft. and such modification significantly degrades the voice services on the Loop, <<customer_name>> shall pay for the Loop to be restored to its original state.
- 3.6 **Provisioning of High Frequency Spectrum and Splitter Space**
- 3.7 BellSouth will provide <<customer_name>> with access to the High Frequency Spectrum as follows:
- 3.8 To order High Frequency Spectrum on a particular Loop, <<customer_name>> must have a Digital Subscriber Line Access Multiplexer (DSLAM) collocated in the central office that serves the end-user of such Loop.
- 3.9 <<customer_name>> may provide its own splitters or may order splitters in a central office once it has installed its DSLAM in that central office. BellSouth will install splitters within thirty-six (36) calendar days of <<customer_name>>'s submission of an error free Line Splitter Ordering Document ("LSOD") to the BellSouth Complex Resale Support Group.
- 3.10 Once a splitter is installed on behalf of <<customer_name>> in a central office in which <<customer_name>> is located, <<customer_name>> shall be entitled to order the High Frequency Spectrum on lines served out of that central office. BellSouth will bill and <<customer_name>> shall pay the electronic or manual ordering charges as applicable when <<customer_name>> orders High Frequency Spectrum for end-user service.
- 3.11 BellSouth will select, purchase, install, and maintain a central office POTS splitter and provide <<customer_name>> access to data ports on the splitter. The splitter will route the High Frequency Spectrum on the circuit to <<customer_name>>'s xDSL equipment in <<customer_name>>'s collocation space. At least 30 days before making a change in splitter suppliers, BellSouth will provide <<customer_name>> with a carrier notification letter, informing

<<customer_name>> of change. <<customer_name>> shall purchase ports on the splitter in increments of 24 or 96 ports.

- 3.12 BellSouth will install the splitter in (i) a common area close to <<customer_name>>'s collocation area, if possible; or (ii) in a BellSouth relay rack as close to <<customer_name>>'s DS0 termination point as possible. Whenever possible, the splitter will be located within 100 feet of the MDF. <<customer_name>> shall have access to the splitter for test purposes, regardless of where the splitter is placed in the BellSouth premises. For purposes of this section, a common area is defined as an area in the central office in which both Parties have access to a common test access point. A Termination Point is defined as the point of termination for <<customer_name>> on the toll main distributing frame in the central office and is not the demarcation point set forth in Attachment 4 of this Agreement. BellSouth will cross-connect the splitter data ports to a specified <<customer_name>> DS0 at such time that a <<customer_name>> end user's service is established.
- 3.13 <<customer_name>> may at its option purchase, install and maintain central office POTS splitters in its collocation arrangements. <<customer_name>> may use such splitters for access to its customers and to provide digital line subscriber services to its customers using the High Frequency Spectrum. Existing Collocation rules and procedures shall apply.
- 3.14 Any splitters installed by <<customer_name>> in its collocation arrangement shall comply with ANSI T1.413, Annex E, or any future ANSI splitter Standards. <<customer_name>> may install any splitters that BellSouth deploys or permits to be deployed for itself or any BellSouth affiliate.
- 3.15 The High Frequency Spectrum shall only be available on Loops on which BellSouth is also providing, and continues to provide, analog voice service directly to the end user. In the event the end-user terminates its BellSouth provided voice service for any reason, or in the event BellSouth disconnects the end user's voice service pursuant to its tariffs or applicable law, and <<customer_name>> desires to continue providing xDSL service on such Loop, <<customer_name>> shall be required to purchase a full stand-alone Loop unbundled network element. To the extent commercially practicable, BellSouth shall give <<customer_name>> notice in a reasonable time prior to disconnect, which notice shall give <<customer_name>> an adequate opportunity to notify BellSouth of its intent to purchase such Loop. In those cases in which BellSouth no longer provides voice service to the end user and <<customer_name>> purchases the full stand-alone Loop, <<customer_name>> may elect the type of loop it will purchase. <<customer_name>> will pay the appropriate recurring and non-recurring rates for such Loop as set forth in Exhibit B to this Attachment. In the event <<customer_name>> purchases a voice grade Loop,

<<customer_name>> acknowledges that such Loop may not remain xDSL compatible.

3.16 Only one competitive local exchange carrier shall be permitted access to the High Frequency Spectrum of any particular loop.

3.17 **Ordering**

3.18 <<customer_name>> shall use BellSouth's Line Splitter Ordering Document ("LSOD") to order splitters from BellSouth and to activate and deactivate DS0 Collocation Connecting Facility Assignments (CFA) for use with High Frequency Spectrum.

3.19 BellSouth will provide <<customer_name>> the Local Service Request ("LSR") format to be used when ordering the High Frequency Spectrum.

3.20 BellSouth will provision High Frequency Spectrum in compliance with BellSouth's Products and Services Interval Guide available at the website at <http://www.interconnection.bellsouth.com>.

3.21 BellSouth will provide <<customer_name>> access to Preordering Loop Makeup (LMU), in accordance with the terms of this Agreement. BellSouth shall bill and <<customer_name>> shall pay the rates for such services, as described in Exhibit B.

3.22 BellSouth shall test the data portion of the loop to ensure the continuity of the wiring for <<customer_name>>'s data.

3.23 **Maintenance and Repair**

3.24 <<customer_name>> shall have access for repair and maintenance purposes, to any loop for which it has access to the High Frequency Spectrum. If <<customer_name>> is using a BellSouth owned splitter, <<customer_name>> may access the loop at the point where the combined voice and data signal exits the central office splitter via a bantam test jack. If <<customer_name>> provides its own splitter in its collocation space, it may test from the collocation space or the Termination Point.

3.25 BellSouth will be responsible for repairing voice services and the physical line between the network interface device at the customer's premises and the Termination Point. <<customer_name>> will be responsible for repairing data services. Each Party will be responsible for maintaining its own equipment.

- 3.26 <<customer_name>> shall inform its end users to direct data problems to <<customer_name>>, unless both voice and data services are impaired, in which event the end users should call BellSouth.
- 3.27 Once a Party has isolated a trouble to the other Party's portion of the loop, the Party isolating the trouble shall notify the end user that the trouble is on the other Party's portion of the Loop.
- 3.28 Notwithstanding anything else to the contrary in this Agreement, when BellSouth receives a voice trouble and isolates the trouble to the physical collocation arrangement belonging to <<customer_name>>, BellSouth will notify <<customer_name>>. <<customer_name>> will provide no more than two (2) verbal connecting facility assignments (CFA) pair changes to BellSouth in an attempt to resolve the voice trouble. In the event a CFA pair change resolves the voice trouble, <<customer_name>> will provide BellSouth an LSR with the new CFA pair information within 24 hours. If the owner of the collocation space fails to resolve the trouble by providing BellSouth with the verbal CFA pair changes, BellSouth may discontinue <<customer_name>>'s access to the High Frequency Spectrum on such loop. BellSouth will not be responsible for any loss of data as a result of this action.
- 3.29 **Line Splitting**
- 3.30 General
- 3.31 Line Splitting allows a provider of data services (a "Data LEC") and a provider of voice services (a "Voice CLEC") to deliver voice and data service to end users over the same loop. The Voice CLEC and Data LEC may be the same or different carriers. <<customer_name>> shall provide BellSouth with a signed Letter of Authorization ("LOA") between it and the Data LEC or Voice CLEC with which it desires to provision Line Splitting services.
- 3.32 The splitter may be provided by the Data LEC, Voice CLEC or BellSouth. When <<customer_name>> or its authorized agent owns the splitter, Line Splitting requires the following: a non-designed analog loop from the serving wire center to the network interface device (NID) at the end user's location; a collocation cross connection connecting the loop to the collocation space; a second collocation cross connection from the collocation space connected to a voice port; and the high frequency spectrum line activation. The loop and port cannot be a loop and port combination (i.e. UNE-P), but will be replaced by individual stand-alone network elements. When BellSouth owns the splitter, Line Splitting requires the following: a non designed analog loop from the serving wire center to the network interface device (NID) at the end user's location with CFA and

splitter port assignments, the high frequency spectrum line activation, and a collocation cross connection from the collocation space connected to a voice port.

- 3.33 An unloaded 2-wire copper loop must serve the end user. The meet point for the Voice CLEC and the Data LEC is the point of termination on the MDF for the Data LEC's cable and pairs.
- 3.34 When end users are converted to Line Splitting arrangements by <<customer_name>> or its authorized agent ordering Line Splitting Service, if the CLEC wishes to provide the splitter, the line splitting arrangement will consist of a stand-alone UNE loop, a UNE port, the high frequency spectrum line activation, and two collocation cross connects. If BellSouth owns the splitter, the UNE-P arrangement will be converted to a stand-alone UNE loop, port, and one collocation cross connection.
- 3.35 If the line splitting arrangement is a migration from line sharing, and no central office wiring is required, the applicable nonrecurring rate to be paid by the Voice CLEC for this line splitting arrangement will be the non-recurring rate for the loop-port combination (switch-as-is). If CO wiring is required (data provider changing) the appropriate charge will be the switch-with-change to change the two collocation cross connections.
- 3.36 When end users using High Frequency Spectrum CO Based line sharing service convert to Line Splitting, BellSouth will discontinue billing for the upper spectrum. BellSouth will continue to bill the Data LEC for all associated splitter charges if the Data LEC continues to use a BellSouth splitter. It is the responsibility of <<customer_name>> or its authorized agent to determine if the loop is compatible for Line Splitting Service. <<customer_name>> or its authorized agent may use the existing loop unless it is not compatible with the Data LEC's data service and << customer_name>> or its authorized agent submits an LSR to BellSouth to change the loop.
- 3.37 The foregoing procedures are applicable to migration to Line Splitting Service from a UNE-P arrangement with CLEC splitter, a UNE-P arrangement with BellSouth Owned Splitter, BellSouth Retail Voice, BellSouth High Frequency Spectrum (CO Based) Line Splitting Service where the Data Provider remains, and BellSouth High Frequency Spectrum (CO Based) Line Splitting Service with the Data Provider changing.
- 3.38 For other migration scenarios to line splitting, BellSouth will work cooperatively with CLECs to develop methods and procedures to develop a process whereby a Voice CLEC and a Data LEC may provide services over the same loop.
- 3.39 **Ordering**

- 3.40 <<customer_name>> shall use BellSouth's Line Splitter Ordering Document ("LSOD") to order splitters from BellSouth and to activate and deactivate DS0 Collocation Connecting Facility Assignments (CFA) for use with Line Splitting.
- 3.41 BellSouth shall provide <<customer_name>> the Local Service Request ("LSR") format to be used when ordering Line Splitting service.
- 3.42 BellSouth will provision Line Splitting service in compliance with BellSouth's Products and Services Interval Guide available at the website at <http://www.interconnection.bellsouth.com>.
- 3.43 BellSouth will provide <<customer_name>> access to Preordering Loop Makeup (LMU) in accordance with the terms of this Agreement. BellSouth shall bill and <<customer_name>> shall pay the rates for such services as described in Exhibit B.
- 3.44 BellSouth will provide loop modification to <<customer_name>> on an existing loop in accordance with procedures developed in the Line Sharing Collaborative. High Frequency Spectrum (CO Based) Unbundled Loop Modification is a separate distinct service from Unbundled Loop Modification set forth in Section 2.5 of this Attachment. Procedures for High Frequency Spectrum (CO Based) Unbundled Loop Modification may be found on the web at: <HTTP://www.interconnection.bellsouth.com/html/unec.html>. Nonrecurring rates for this UNE offering may be found in Exhibit B of this Attachment.
- 3.45 **Maintenance**
- 3.46 BellSouth will be responsible for repairing voice services and the physical line between the network interface device at the customer's premises and the Termination Point. <<customer_name>> will be responsible for repairing data services. Each Party will be responsible for maintaining its own equipment.
- 3.47 <<customer_name>> shall inform its end users to direct data problems to <<customer_name>>, unless both voice and data services are impaired, in which event the end users should call BellSouth.
- 3.48 Once a Party has isolated a trouble to the other Party's portion of the loop, the Party isolating the trouble shall notify the end user that the trouble is on the other Party's portion of the Loop.
- 3.49 When BellSouth receives a voice trouble and isolates the trouble to the physical collocation arrangement belonging to owner of the collocation space, BellSouth will notify the owner of the collocation space. The owner of the collocation space will provide no more than two (2) verbal CFA pair changes to BellSouth in an attempt to resolve the voice trouble. In the event the CFA pair is changed, the

owner of the collocation space will provide BellSouth an LSR with the new CFA pair information within 24 hours. If the owner of the collocation space fails to resolve the trouble by providing BellSouth with the verbal CFA pair changes, BellSouth may discontinue the owner of the collocation space access to the High Frequency Spectrum on such loop.

3.50 If <<customer_name>> is not the data provider, <<customer_name>> shall indemnify, defend and hold harmless BellSouth from and against any claims, losses, actions, causes of action, suits, demands, damages, injury, and costs including reasonable attorney fees, which arise out of actions, related to the data provider.

3.51 Remote Site High Frequency Spectrum

3.52 General

3.53 BellSouth shall provide <<customer_name>> access to the high frequency spectrum of the local sub-loop as an unbundled network element (UNE) only where BellSouth is the voice service provider to the end user at the rates set forth in this Attachment.

3.54 The High Frequency Spectrum is defined as the frequency range above the voiceband on a copper loop facility carrying analog circuit-switched voiceband transmissions. Access to the High Frequency Spectrum is intended to allow <<customer_name>> the ability to provide Digital Subscriber Line ("xDSL") data services to the end user for which BellSouth provides voice services. The High Frequency Spectrum shall be available for any version of xDSL complying with Spectrum Management Class 5 of ANSI T1.417, American National Standard for Telecommunications, Spectrum Management for Loop Transmission Systems. BellSouth will continue to have access to the low frequency portion of the loop spectrum (from 300 Hertz to at least 3000 Hertz, and potentially up to 3400 Hertz, depending on equipment and facilities) for the purposes of providing voice service. <<customer_name>> shall only use xDSL technology that is within the PSD mask for Spectrum Management Class 5 as found in the above-mentioned document.

3.55 Access to the High Frequency Spectrum requires an unloaded, 2-wire (Non-Designed) copper sub-loop. An unloaded copper sub-loop has no load coils, low-pass filters, range extenders, DAMLs, or similar devices and minimal bridged taps consistent with ANSI T1.413 and T1.601.

3.56 BellSouth will provide Loop Modification to <<customer_name>> on an existing Loop in accordance with procedures developed in the Line Sharing Collaborative. Procedures for High Frequency Spectrum (Remote Site) Unbundled Loop Modification were developed in the Line Sharing Collaborative and may be found

posted to the web at <http://www.interconnection.bellsouth.com/html/unes.html>. Nonrecurring rates for this UNE offering may be found in Exhibit B of this Attachment. BellSouth is not required to modify a Loop for access to the High Frequency spectrum if modification of that Loop significantly degrades BellSouth's voice service. If <<customer_name>> requests modifications on a sub loop longer than 18,000 ft. and requested modifications significantly degrades the voice services on the loop, <<customer_name>> shall pay for the loop to be restored to its original state.

3.57 Provisioning of High Frequency Spectrum and Splitter Space

3.58 BellSouth will provide <<customer_name>> with access to the High Frequency Spectrum as follows:

3.59 To order High Frequency Spectrum on a particular Loop, <<customer_name>> must have a Digital Subscriber Line Access Multiplexer (DSLAM) collocated at the remote site that serves the end-user of such Loop.

3.60 <<customer_name>> may provide its own splitters or may order splitters in a remote site once the <<customer_name>> has installed its DSLAM at that remote site. BellSouth will install splitters within thirty-six (36) calendar days of <<customer_name>>'s submission of an error free Line Splitter Ordering Document ("LSOD") to the BellSouth Complex Resale Support Group.

3.61 Once a splitter is installed on behalf of <<customer_name>> in a remote site in which <<customer_name>> is located, <<customer_name>> shall be entitled to order the High Frequency Spectrum on lines served out of that remote site. BellSouth will bill and <<customer_name>> shall pay applicable for High Frequency Spectrum end-user activation.

3.62 BellSouth Owned Splitter

3.63 BellSouth will select, purchase, install and maintain a splitter at the remote site. The <<customer_name>>'s meet point is at the BellSouth "cross connect" point located at the Feeder Distribution Interface (FDI). The <<customer_name>> will provide a cable facility to the BellSouth FDI. BellSouth will splice the <<customer_name>>'s cable to BellSouth's spare binding post in the FDI and use "cross connects" to connect the <<customer_name>>'s cable facility to the BellSouth splitter. The splitter will route the high frequency portion of the circuit to the <<customer_name>>'s xDSL equipment in their collocation space. Access to the high frequency spectrum is not compatible with foreign exchange (FX) lines, ISDN, and other services listed in the technical section of this document.

3.64 The BellSouth splitter bifurcates the digital and voice band signals. The low frequency voice band portion of the circuit is routed back to the BellSouth switch.

The high frequency digital traffic portion of the circuit is routed to the xDSL equipment in the <<customer_name>>'s Remote Terminal (RT) collocation space and routed back to the <<customer_name>>'s network. At least 30 business days before making a change in splitter suppliers, BellSouth will provide <<customer_name>> with a carrier notification letter, informing <<customer_name>> of change. <<customer_name>> shall purchase ports on the splitter in increments of 24 ports.

- 3.65** BellSouth will install the splitter in (i) a common area close to <<customer_name>>'s collocation area, if possible; or (ii) in a BellSouth relay rack as close to <<customer_name>>'s DS0 termination point as possible. <<customer_name>> shall have access to the splitter for test purposes, regardless of where the splitter is placed in the BellSouth premises. For purposes of this section, a common area is defined as an area in the remote site in which both Parties have access to a common test access point. BellSouth will cross-connect the splitter data ports to a specified <<customer_name>> DS0 at such time that a <<customer_name>> end user's service is established.
- 3.66** **CLEC Owned Splitter**
- 3.67** <<customer_name>> may at its option purchase, install and maintain splitters in its collocation arrangements. <<customer_name>> may use such splitters for access to its customers and to provide digital line subscriber services to its customers using the High Frequency Spectrum. Existing Collocation rules and procedures shall apply. The CLEC will be required to activate cable pairs in no less than 8 (eight) pair increments.
- 3.68** Any splitters installed by <<customer_name>> in its collocation arrangement shall comply with ANSI T1.413, Annex E, or any future ANSI splitter Standards. <<customer_name>> may install any splitters that BellSouth deploys or permits to be deployed for itself or any BellSouth affiliate.
- 3.69** The High Frequency Spectrum shall only be available on sub-loops provided by BellSouth that continues to provide, analog voice service directly to the end user. In the event the end-user terminates its BellSouth provided voice service for any reason, or in the event BellSouth disconnects the end user's voice service pursuant to its tariffs or applicable law, and <<customer_name>> desires to continue providing xDSL service on such sub-loop, <<customer_name>> shall be required to purchase a full stand-alone sub-loop. To the extent commercially practicable, BellSouth shall give <<customer_name>> notice in a reasonable time prior to disconnect, which notice shall give <<customer_name>> an adequate opportunity to notify BellSouth of its intent to purchase such sub-loop. In those cases where BellSouth no longer provides voice service to the end user and <<customer_name>> purchases the full stand-alone sub-loop,

<<customer_name>> may elect the type of sub-loop it will purchase.
<<customer_name>> will pay the appropriate recurring and non-recurring rates for such sub-loop as set forth in Exhibit B to this Attachment. In the event <<customer_name>> purchases a voice grade Loop, <<customer_name>> acknowledges that such sub-loop may not remain xDSL compatible.

3.70 Only one competitive local exchange carrier shall be permitted access to the High Frequency Spectrum of any particular loop.

3.71 **Ordering**

3.72 <<customer_name>> shall use BellSouth's Remote Splitter Ordering Document ("RSOD") to order and activate splitters from BellSouth or to activate CLEC owned splitters at an RT for use with High Frequency Spectrum.

3.73 BellSouth will provide <<customer_name>> the Local Service Request ("LSR") format to be used when ordering the High Frequency Spectrum.

3.74 BellSouth will provision High Frequency Spectrum in compliance with BellSouth's Products and Services Interval Guide available at the website at <http://www.interconnection.bellsouth.com>.

3.75 BellSouth will provide <<customer_name>> access to Preordering Loop Makeup (LMU), in accordance with the terms of this Agreement. BellSouth shall bill and <<customer_name>> shall pay the rates for such services, as described in Exhibit B.

3.76 BellSouth shall test the data portion of the loop to ensure the continuity of the wiring for <<customer_name>>'s data.

3.77 **Maintenance and Repair**

3.78 <<customer_name>> shall have access for repair and maintenance purposes, to any loop for which it has access to the High Frequency Spectrum. If <<customer_name>> is using a BellSouth owned splitter, <<customer_name>> may access the loop at the point where the data signal exits. If <<customer_name>> provides its own splitter, it may test from the collocation space or the Termination Point.

3.79 BellSouth will be responsible for repairing voice services and the physical line between the network interface device at the customer's premises and the Termination Point. <<customer_name>> will be responsible for repairing data services. Each Party will be responsible for maintaining its own equipment.

- 3.80 <<customer_name>> shall inform its end users to direct data problems to <<customer_name>>, unless both voice and data services are impaired, in which event the end users should call BellSouth.
- 3.81 Once a Party has isolated a trouble to the other Party's portion of the loop, the Party isolating the trouble shall notify the end user that the trouble is on the other Party's portion of the Loop.
- 3.82 Notwithstanding anything else to the contrary in this Agreement, when BellSouth receives a voice trouble and isolates the trouble to the physical collocation arrangement belonging to <<customer_name>>, BellSouth will notify <<customer_name>>. <<customer_name>> will provide no more than two (2) verbal connecting facility assignments (CFA) pair changes to BellSouth in an attempt to resolve the voice trouble. In the event a CFA pair change resolves the voice trouble, <<customer_name>> will provide BellSouth an LSR with the new CFA pair information within 24 hours. If the owner of the collocation space fails to resolve the trouble by providing BellSouth with the verbal CFA pair changes, BellSouth may discontinue <<customer_name>>'s access to the High Frequency Spectrum on such loop. BellSouth will not be responsible for any loss of data as a result of this action.

4. Local Switching

- 4.1 BellSouth shall provide non-discriminatory access to local circuit switching capability and local tandem switching capability on an unbundled basis, except as set forth in the Sections below to <<customer_name>> for the provision of a telecommunications service. BellSouth shall provide non-discriminatory access to packet switching capability on an unbundled basis to <<customer_name>> for the provision of a telecommunications service only in the limited circumstance described below in Section 4.5.

4.2 Local Circuit Switching Capability, including Tandem Switching Capability

- 4.2.1 Local circuit switching capability is defined as: (A) line-side facilities, which include, but are not limited to, the connection between a loop termination at a main distribution frame and a switch line card; (B) trunk-side facilities, which include, but are not limited to, the connection between trunk termination at a trunk-side cross-connect panel and a switch trunk card; (C) switching provided by remote switching modules; and (D) all features, functions, and capabilities of the switch, which include, but are not limited to: (1) the basic switching function of connecting lines to lines, line to trunks, trunks to lines, and trunks to trunks, as well as the same basic capabilities made available to BellSouth's customers, such as a telephone number, white page listings, and dial tone; and (2) all other features

that the switch is capable of providing, including but not limited to customer calling, customer local area signaling service features, and Centrex, as well as any technically feasible customized routing functions provided by the switch. Any features that are not currently available but are technically feasible through the switch can be requested through the BFR/NBR process.

- 4.2.2 Notwithstanding BellSouth's general duty to unbundle local circuit switching, BellSouth shall not be required to unbundle local circuit switching for <<customer_name>> when <<customer_name>> serves an end-user with four (4) or more voice-grade (DS-0) equivalents or lines served by BellSouth in the following MSA: Nashville, TN, and BellSouth has provided non-discriminatory cost based access to the Enhanced Extended Link (EEL) throughout Density Zone 1 as determined by NECA Tariff No. 4 as in effect on January 1, 1999.
- 4.2.3 In the event that <<customer_name>> orders local circuit switching for an end user with four (4) or more 2-wire voice-grade loops from a BellSouth central office in the MSA listed above, BellSouth shall charge <<customer_name>> the market based rates for use of the local circuit switching functionality for the affected facilities.
- 4.2.4 Unbundled Local Switching consists of three separate unbundled elements: Unbundled Ports, End Office Switching Functionality, and End Office Interoffice Trunk Ports.
- 4.2.5 Unbundled Local Switching combined with Common Transport and, if necessary, Tandem Switching provides to <<customer_name>>'s end user local calling and the ability to presubscribe to a primary carrier for intraLATA and/or to presubscribe to a primary carrier for interLATA toll service.
- 4.2.6 Provided that <<customer_name>> purchases unbundled local switching from BellSouth and uses the BellSouth CIC for its end users' LPIC or if a BellSouth local end user selects BellSouth as its LPIC, then the Parties will consider as local any calls originated by an <<customer_name>> local end user, or originated by a BellSouth local end user and terminated to an <<customer_name>> local end user, where such calls originate and terminate in the same LATA, except for those calls originated and terminated through switched access arrangements (i.e., calls that are transported by a party other than BellSouth). For such calls, BellSouth will charge <<customer_name>> the UNE elements for the BellSouth facilities utilized. Neither Party shall bill the other originating or terminating switched access charges for such calls. Intercarrier compensation for local calls between BellSouth and <<customer_name>> shall be as described in BellSouth's UNE Local Call Flows set forth on BellSouth's web site, incorporated herein by this reference.

- 4.2.7 BellSouth shall assess <<customer_name>> retroactive charges for UNE transport and switching associated with using the BellSouth LPIC if <<customer_name>> has been able to previously select BellSouth as the end user LPIC prior to the option allowing the selection of a BellSouth provided LATA-wide local calling area being offered.
- 4.2.8 Where <<customer_name>> purchases unbundled local switching from BellSouth but does not use the BellSouth CIC for its end users' LPIC, BellSouth will consider as local those direct dialed telephone calls that originate from an <<customer_name>> end user and terminate within the basic local calling area or within the extended local calling areas and that are dialed using 7 or 10 digits as defined and specified in Section A3 of BellSouth's General Subscriber Services Tariffs. For such local calls, BellSouth will charge <<customer_name>> the UNE elements for the BellSouth facilities utilized. Intercarrier compensation for local calls between BellSouth and <<customer_name>> shall be as described in BellSouth's UNE Local Call Flows set forth on BellSouth's web site.
- 4.2.9 For any calls that originate and terminate through switched access arrangements (i.e., calls that are transported by a party other than BellSouth), BellSouth shall bill <<customer_name>> the UNE elements for the BellSouth facilities utilized. Each Party may bill the toll provider originating or terminating switched access charges, as appropriate.
- 4.2.10 Reverse billed toll calls, such as intraLATA 800 calls, calling card calls and third party billed calls, where BellSouth is the carrier shall also be considered as local calls and <<customer_name>> shall not bill BellSouth originating or terminating switched access for such calls.
- 4.2.11 **Unbundled Port Features**
- 4.2.11.1 Charges for Unbundled Port are as set forth in Exhibit B, and as specified in such exhibit, may or may not include individual features.
- 4.2.11.2 Where applicable and available, non-switch-based services may be ordered with the Unbundled Port at BellSouth's retail rates.
- 4.2.11.3 Any features that are not currently available but are technically feasible through the switch can be requested through the BFR/NBR process.
- 4.2.11.4 BellSouth will provide to <<customer_name>> selective routing of calls to a requested Operator System platform pursuant to Section 10 of Attachment 2. Any other routing requests by <<customer_name>> will be made pursuant to the BFR/NBR Process as set forth in General Terms and Conditions.
- 4.2.12 **Provision for Local Switching**

- 4.2.12.1 BellSouth shall perform routine testing (e.g., Mechanized Loop Tests (MLT) and test calls such as 105, 107 and 108 type calls) and fault isolation on a mutually agreed upon schedule.
- 4.2.12.2 BellSouth shall control congestion points such as those caused by radio station call-ins, and network routing abnormalities. All traffic shall be restricted in a non-discriminatory manner.
- 4.2.12.3 BellSouth shall perform manual call trace and permit customer originated call trace. BellSouth shall provide Switching Service Point (SSP) capabilities and signaling software to interconnect the signaling links destined to the Signaling Transfer Point Switch (STPS). These capabilities shall adhere to the technical specifications set forth in the applicable industry standard technical references.
- 4.2.12.4 BellSouth shall provide interfaces to adjuncts through Telcordia standard interfaces. These adjuncts can include, but are not limited to, the Service Circuit Node and Automatic Call Distributors. BellSouth shall offer to <<customer_name>> all AIN triggers in connection with its SMS/SCE offering.
- 4.2.12.5 BellSouth shall provide access to SS7 Signaling Network or Multi-Frequency trunking if requested by <<customer_name>>.
- 4.2.13 **Local Switching Interfaces.**
- 4.2.13.1 <<customer_name>> shall order ports and associated interfaces compatible with the services it wishes to provide, as listed in Exhibit B. BellSouth shall provide the following local switching interfaces:
 - 4.2.13.1.1 Standard Tip/Ring interface including loopstart or groundstart, on-hook signaling (e.g., for calling number, calling name and message waiting lamp);
 - 4.2.13.1.2 Coin phone signaling;
 - 4.2.13.1.3 Basic Rate Interface ISDN adhering to appropriate Telcordia Technical Requirements;
 - 4.2.13.1.4 Two-wire analog interface to PBX;
 - 4.2.13.1.5 Four-wire analog interface to PBX;
 - 4.2.13.1.6 Four-wire DS1 interface to PBX or customer provided equipment (e.g. computers and voice response systems);
 - 4.2.13.1.7 Primary Rate ISDN to PBX adhering to ANSI standards Q.931, Q.932 and appropriate Telcordia Technical Requirements;

4.2.13.1.8 Switched Fractional DS1 with capabilities to configure Nx64 channels (where N = 1 to 24); and

4.2.13.1.9 Loops adhering to Telcordia TR-NWT-08 and TR-NWT-303 specifications to interconnect Digital Loop Carriers.

4.3 **Tandem Switching**

4.3.1 The Tandem Switching capability Network Element is defined as: (i) trunk-connect facilities, which include, but are not limited to, the connection between trunk termination at a cross connect panel and switch trunk card; (ii) the basic switch trunk function of connecting trunks to trunks; and (iii) the functions that are centralized in the Tandem Switches (as distinguished from separate end office switches), including but not limited to call recording, the routing of calls to operator services and signaling conversion features.

4.3.2 **Technical Requirements**

4.3.2.1 Tandem Switching shall have the same capabilities or equivalent capabilities as those described in Telcordia TR-TSY-000540 Issue 2R2, Tandem Supplement, 6/1/90. The requirements for Tandem Switching include, but are not limited to the following:

4.3.2.1.1 Tandem Switching shall provide signaling to establish a tandem connection;

4.3.2.1.2 Tandem Switching will provide screening as jointly agreed to by <<customer_name>> and BellSouth;

4.3.2.1.3 Tandem Switching shall provide Advanced Intelligent Network triggers supporting AIN features where such routing is not available from the originating end office switch, to the extent such Tandem switch has such capability;

4.3.2.1.4 Tandem Switching shall provide access to Toll Free number database;

4.3.2.1.5 Tandem Switching shall provide connectivity to PSAPs where 911 solutions are deployed and the tandem is used for 911; and

4.3.2.1.6 Where appropriate, Tandem Switching shall provide connectivity for the purpose of routing transit traffic to and from other carriers.

4.3.2.2 BellSouth may perform testing and fault isolation on the underlying switch that is providing Tandem Switching. Such testing shall be testing routinely performed by BellSouth. The results and reports of the testing shall be made available to <<customer_name>>.

- 4.3.2.3 BellSouth shall control congestion points and network abnormalities. All traffic will be restricted in a non-discriminatory manner.
- 4.3.2.4 Tandem Switching shall process originating toll-free traffic received from <<customer_name>>'s local switch.
- 4.3.2.5 In support of AIN triggers and features, Tandem Switching shall provide SSP capabilities when these capabilities are not available from the Local Switching Network Element, to the extent such Tandem Switch has such capability.
- 4.3.3 Upon <<customer_name>>'s purchase of overflow trunk groups, Tandem Switching shall provide an alternate routing pattern for <<customer_name>>'s traffic overflowing from direct end office high usage trunk groups.
- 4.4 **AIN Selective Carrier Routing for Operator Services, Directory Assistance and Repair Centers**
- 4.4.1 BellSouth will provide AIN Selective Carrier Routing at the request of <<customer_name>>. AIN Selective Carrier Routing will provide <<customer_name>> with the capability of routing operator calls, 0+ and 0- and 0+ NPA (LNPA) 555-1212 directory assistance, 1+411 directory assistance and 611 repair center calls to pre-selected destinations.
- 4.4.2 <<customer_name>> shall order AIN Selective Carrier Routing through its Account Team. AIN Selective Carrier Routing must first be established regionally and then on a per central office, per state basis.
- 4.4.3 AIN Selective Carrier Routing is not available in DMS 10 switches.
- 4.4.4 Where AIN Selective Carrier Routing is utilized by <<customer_name>>, the routing of <<customer_name>>'s end user calls shall be pursuant to information provided by <<customer_name>> and stored in BellSouth's AIN Selective Carrier Routing Service Control Point database. AIN Selective Carrier Routing shall utilize a set of Line Class Codes (LCCs) unique to a basic class of service assigned on an 'as needed' basis. The same LCCs will be assigned in each central office where AIN Selective Carrier Routing is established.
- 4.4.5 Upon ordering of AIN Selective Carrier Routing Regional Service, <<customer_name>> shall remit to BellSouth the Regional Service Order non-recurring charges set forth in Exhibit B of this Attachment. There shall be a non-recurring End Office Establishment Charge per office due at the addition of each central office where AIN Selective Carrier Routing will be utilized. Said non-recurring charge shall be as set forth in Exhibit B of this Attachment. For each <<customer_name>> end user activated, there shall be a non-recurring End User Establishment charge as set forth in Exhibit B of this Attachment.

<<customer_name>> shall pay the AIN Selective Carrier Routing Per Query Charge set forth in Exhibit B of this Attachment.

- 4.4.6 This Regional Service Order non-recurring charge will be non-refundable and will be paid with 1/2 due up-front with the submission of all fully completed required forms, including: Regional Selective Carrier Routing (SCR) Order Request-Form A, Central Office AIN Selective Carrier Routing (SCR) Order Request - Form B, AIN_SCR Central Office Identification Form - Form C, AIN_SCR Routing Options Selection Form - Form D, and Routing Combinations Table - Form E. BellSouth has 30 days to respond to <<customer_name>>'s fully completed firm order as a Regional Service Order. With the delivery of this firm order response to <<customer_name>>, BellSouth considers that the delivery schedule of this service commences. The remaining 1/2 of the Regional Service Order payment must be paid when at least 90% of the Central Offices listed on the original order have been turned up for the service.
- 4.4.7 The non-recurring End Office Establishment Charge will be billed to <<customer_name>> following BellSouth's normal monthly billing cycle for this type of order.
- 4.4.8 End-User Establishment Orders will not be turned-up until the second payment is received for the Regional Service Order. The non-recurring End-User Establishment Charges will be billed to <<customer_name>> following BellSouth's normal monthly billing cycle for this type of order.
- 4.4.9 Additionally, the AIN Selective Carrier Routing Per Query Charge will be billed to <<customer_name>> following the normal billing cycle for per query charges.
- 4.4.10 All other network components needed, for example, unbundled switching and unbundled local transport, etc, will be billed per contracted rates.
- 4.5 **Packet Switching Capability**
- 4.5.1 The packet switching capability network element is defined as the function of routing or forwarding packets, frames, cells or other data units based on address or other routing information contained in the packets, frames, cells or other data units.
- 4.5.2 BellSouth shall be required to provide non-discriminatory access to unbundled packet switching capability only where each of the following conditions are satisfied:
- 4.5.2.1 BellSouth has deployed digital loop carrier systems, including but not limited to, integrated digital loop carrier or universal digital loop carrier systems; or has deployed any other system in which fiber optic facilities replace copper facilities

in the distribution section (e.g., end office to remote terminal, pedestal or environmentally controlled vault);

4.5.2.2 There are no spare copper loops capable of supporting the xDSL services <<customer_name>> seeks to offer;

4.5.2.3 BellSouth has not permitted <<customer_name>> to deploy a DSLAM at the remote terminal, pedestal or environmentally controlled vault or other interconnection point, nor has <<customer_name>> obtained a virtual collocation arrangement at these sub-loop interconnection points as defined by 47 CFR § 51.319 (b); and

4.5.2.4 BellSouth has deployed packet switching capability for its own use.

4.5.3 If there is a dispute as to whether BellSouth must provide Packet Switching, such dispute will be resolved according to the dispute resolution process set forth in Section 12 of the General Terms and Conditions of this Agreement, incorporated herein by this reference.

4.6 **Interoffice Transmission Facilities**

4.6.1 BellSouth shall provide nondiscriminatory access, in accordance with FCC Rule 51.311 and Section 251(c)(3) of the Act, to interoffice transmission facilities on an unbundled basis to <<customer_name>> for the provision of a telecommunications service.

5. **Unbundled Network Element Combinations**

5.1 At the CLEC's request and subject to the terms and conditions set forth herein, BellSouth shall provide access to Currently Combined, and Ordinarily Combined combinations of port and loop unbundled network elements and loop and transport unbundled network elements, (hereinafter referred to as Enhanced Extended Links or "EELs"). BellSouth shall also provide access to Not Typically Combined combinations. Currently Combined, Ordinarily Combined and Not Typically Combined shall have the meaning set forth below.

5.1.1 Currently Combined network element combinations shall mean that such unbundled network elements are in fact already combined by BellSouth in the BellSouth network to provide telecommunications service to a particular location.

5.1.2 Ordinarily Combined network element combinations shall mean that such unbundled network elements are combined by BellSouth in the BellSouth network in the manner in which they are typically combined even if the particular elements being ordered are not actually physically connected at the time the order is placed.

- 5.1.3 Not Typically Combined unbundled network element combinations shall mean that such network elements are neither Currently Combined nor Ordinarily Combined as these terms are defined above. In compliance with FCC Rule 51.315(d), requests for combinations of Not Typically Combined unbundled network elements are available through the bona fide request process as set forth in Agreement. Rates for Not Typically Combined unbundled network element combinations shall be negotiated through the bona fide request process.

5.2 Port/Loop Combinations

- 5.2.1 In accordance with effective and applicable FCC rules, BellSouth shall not be required to provide circuit switching as an unbundled network element in density Zone 1, as defined in 47 C.F.R. 69.123 as of January 1, 1999 of the Nashville, TN MSA to the CLEC if the CLEC's customer has 4 or more DS0 equivalent lines. BellSouth shall make available loop and port combinations, as set forth in Section 5.3 below, except in those locations where BellSouth is not required to provide circuit switching.¹
- 5.2.2 Combinations of port and loop unbundled network elements provide local exchange service for the origination or termination of calls.

5.3 Currently Combined and Ordinarily Combined Port/Loop Combination Offerings:

- 5.3.1 2-wire voice grade port, voice grade loop, unbundled end office switching, unbundled end office trunk port, common transport per mile per MOU, common transport facilities termination, tandem switching, and tandem trunk port.
- 5.3.2 2-wire voice grade Coin port, voice grade loop, unbundled end office switching, unbundled end office trunk port, common transport per mile per MOU, common transport facilities termination, tandem switching, and tandem trunk port.

¹ Although BellSouth can aggregate lines of a customer running from multiple locations for the purpose of determining if BellSouth is obligated to provide unbundled local switching pursuant to FCC Rule 51.319(c)(2), this aggregation must be based on each location within the Nashville Metropolitan Statistical Area served by <<customer>>. <<customer>> is entitled to purchase unbundled local switching from BellSouth if it serves less than four lines of any customer. For example, assuming three (3) lines per location, if <<customer>> serves one (1) location, then pursuant to FCC Rule 51.319(c)(2) unbundled local switching would be available to <<customer>>. If, however, <<customer>> serves two (2) or more locations, again assuming three (3) lines per location, then unbundled local switching would not be available to <<customer>>. (*Order Granting in Part Requests for Reconsideration and Clarification in TRA Docket No. 00-00079, dated April 22, 2002*).

- 5.3.3 2-wire voice grade DID port, voice grade loop, unbundled end office switching, unbundled end office trunk port, common transport per mile per MOU, common transport facilities termination, tandem switching, and tandem trunk port.
- 5.3.4 2-wire CENTREX port, voice grade loop, unbundled end office switching, unbundled end office trunk port, common transport per mile per MOU, common transport facilities termination, tandem switching, and tandem trunk port.
- 5.3.5 2-wire ISDN Basic Rate Interface, voice grade loop, unbundled end office switching, unbundled end office trunk port, common transport per mile per MOU, common transport facilities termination, tandem switching, and tandem trunk port.
- 5.3.6 4-wire ISDN Primary Rate Interface, DS1 loop, unbundled end office switching, unbundled end office trunk port, common transport per mile per MOU, common transport facilities termination, tandem switching, and tandem trunk port.
- 5.3.7 4-wire DS1 Trunk port, DS1 Loop, unbundled end office switching, unbundled end office trunk port, common transport per mile per MOU, common transport facilities termination, tandem switching, and tandem trunk port.
- 5.3.8 4-wire DS1 Loop with normal serving wire center channelization interface, unbundled port, unbundled end office switching, unbundled end office trunk port, common transport per mile per MOU, common transport facilities termination, tandem switching, and tandem trunk port.

5.4 Rates for Port/Loop Combinations

- 5.4.1 Recurring and nonrecurring rates for Currently Combined and Ordinarily Combined port/loop unbundled network element combinations shall be as set forth in Exhibit B to this Attachment. To the extent that a CLEC seeks to obtain port/loop combinations of unbundled network elements that are Currently Combined or Ordinarily Combined in BellSouth's network but that are not priced in Exhibit B to this Attachment, the CLEC may purchase such unbundled network element combinations at the sum of the stand-alone recurring and nonrecurring prices of the unbundled network elements which make up the combination.

5.5 EEL Combinations

- 5.5.1 At the CLEC's request, BellSouth shall provide access to Currently Combined and Ordinarily Combined EELs.
- 5.5.2 BellSouth will not make auditing a precondition to converting special access services provided by BellSouth to unbundled network elements; however, after

the special access services have been converted to unbundled network elements, BellSouth may audit CLEC records in order to verify the type of traffic being transmitted over loop/transport unbundled network element combinations. If, based on its audits, BellSouth concludes that a CLEC is not providing a significant amount of local exchange traffic over the facilities; BellSouth may file a complaint with the Commission. CLEC's requirements regarding certification of its provision of a significant amount of local exchange traffic and the definition of a "significant amount of local exchange traffic" shall be as set forth in the FCC's orders regarding same.

5.6 EELs

5.6.1 BellSouth will provide access to EELs to provide connectivity from an end user's location through that end user's SWC to CLEC-1's POP serving wire center. The circuit must be connected to CLEC-1's switch for the purpose of provisioning telephone exchange service to CLEC-1's end-user customers. The EEL will be connected to CLEC-1's facilities in CLEC-1's collocation space at the POP SWC, or CLEC-1 may purchase BellSouth's access facilities between CLEC-1's POP and CLEC-1's collocation space at the POP SWC.

5.7 Currently Combined and Ordinarily Combined EEL Offerings:

- 5.7.1 DS1 Interoffice Channel + DS1 Channelization + 2-wire VG Local Loop
- 5.7.2 DS1 Interoffice Channel + DS1 Channelization + 4-wire VG Local Loop
- 5.7.3 DS1 Interoffice Channel + DS1 Channelization + 2-wire ISDN Local Loop
- 5.7.4 DS1 Interoffice Channel + DS1 Channelization + 4-wire 56 kbps Local Loop
- 5.7.5 DS1 Interoffice Channel + DS1 Channelization + 4-wire 64 kbps Local Loop
- 5.7.6 DS1 Interoffice Channel + DS1 Local Loop
- 5.7.7 DS3 Interoffice Channel + DS3 Local Loop
- 5.7.8 STS-1 Interoffice Channel + STS-1 Local Loop
- 5.7.9 DS3 Interoffice Channel + DS3 Channelization + DS1 Local Loop
- 5.7.10 STS-1 Interoffice Channel + DS3 Channelization + DS1 Local Loop

- 5.7.11 2-wire VG Interoffice Channel + 2-wire VG Local Loop
- 5.7.12 4-wire VG Interoffice Channel + 4-wire VG Local Loop
- 5.7.13 4-wire 56 kbps Interoffice Channel + 4-wire 56 kbps Local Loop
- 5.7.14 4-wire 64 kbps Interoffice Channel + 4-wire 64 kbps Local Loop

5.8 Rates for EELs

- 5.8.1 Recurring and nonrecurring rates for Currently Combined and Ordinarily Combined EELs shall be as set forth in Exhibit B to this Attachment. To the extent that a CLEC seeks to obtain EELs that are Currently Combined or Ordinarily Combined in BellSouth's network but that are not priced in Exhibit to this Attachment, the CLEC may purchase such EELS at the sum of the stand-alone recurring and nonrecurring prices of the unbundled network elements which make up the EEL.

5.9 Special Access Service Conversions

- 5.9.1 <<customer_name>> may not convert special access services to combinations of loop and transport network elements, whether or not <<customer_name>> self-provides its entrance facilities (or obtains entrance facilities from a third party), unless <<customer_name>> uses the combination to provide a significant amount of local exchange service, in addition to exchange access service, to a particular customer. To the extent <<customer_name>> requests to convert any special access services to combinations of loop and transport network elements at UNE prices, <<customer_name>> shall provide to BellSouth a letter certifying that <<customer_name>> is providing a significant amount of local exchange service (as described in this Section) over such combinations. The certification letter shall also indicate under what local usage option <<customer_name>> seeks to qualify for conversion of special access circuits. <<customer_name>> shall be deemed to be providing a significant amount of local exchange service over such combinations if one of the following options is met:
- 5.9.2 <<customer_name>> certifies that it is the exclusive provider of an end user's local exchange service. The loop-transport combinations must terminate at <<customer_name>>'s collocation arrangement in at least one BellSouth central office. This option does not allow loop-transport combinations to be connected to BellSouth's tariffed services. Under this option, <<customer_name>> is the

end user's only local service provider, and thus, is providing more than a significant amount of local exchange service. <<customer_name>> can then use the loop-transport combinations that serve the end user to carry any type of traffic, including using them to carry 100 percent interstate access traffic; or

- 5.9.3 <<customer_name>> certifies that it provides local exchange and exchange access service to the end user customer's premises and handles at least one third of the end user customer's local traffic measured as a percent of total end user customer local dialtone lines; and for DS1 circuits and above, at least 50 percent of the activated channels on the loop portion of the loop-transport combination have at least 5 percent local voice traffic individually, and the entire loop facility has at least 10 percent local voice traffic. When a loop-transport combination includes multiplexing, each of the individual DS1 circuits must meet these criteria. The loop-transport combination must terminate at <<customer_name>>'s collocation arrangement in at least one BellSouth central office. This option does not allow loop-transport combinations to be connected to BellSouth tariffed services; or
- 5.9.4 <<customer_name>> certifies that at least 50 percent of the activated channels on a circuit are used to provide originating and terminating local dialtone service and at least 50 percent of the traffic on each of these local dialtone channels is local voice traffic, and that the entire loop facility has at least 33 percent local voice traffic. When a loop-transport combination includes multiplexing, each of the individual DS1 circuits must meet these criteria. This option does not allow loop-transport combinations to be connected to BellSouth's tariffed services. Under this option, collocation is not required. <<customer_name>> does not need to provide a defined portion of the end user's local service, but the active channels on any loop-transport combination, and the entire facility, must carry the amount of local exchange traffic specified in this option.
- 5.9.5 In addition, there may be extraordinary circumstances where <<customer_name>> is providing a significant amount of local exchange service, but does not qualify under any of the three options set forth in Section 0. In such case, <<customer_name>> may petition the FCC for a waiver of the local usage options set forth in the June 2, 2000 Order. If a waiver is granted, then upon <<customer_name>>'s request the Parties shall amend this Agreement to the extent necessary to incorporate the terms of such waiver for such extraordinary circumstance.
- 5.9.6 BellSouth may at its sole discretion audit <<customer_name>> records in order to verify the type of traffic being transmitted over combinations of loop and transport network elements. The audit shall be conducted by a third party independent auditor, and <<customer_name>> shall be given thirty days written notice of scheduled audit. Such audit shall occur no more than one time in a calendar year, unless results of an audit find noncompliance with the significant amount of local

exchange service requirement. In the event of noncompliance, <<customer_name>> shall reimburse BellSouth for the cost of the audit. If, based on its audits, BellSouth concludes that <<customer_name>> is not providing a significant amount of local exchange traffic over the combinations of loop and transport network elements, BellSouth may file a complaint with the TRA, pursuant to the dispute resolution process as set forth in the Interconnection Agreement. In the event that BellSouth prevails, BellSouth may convert such combinations of loop and transport network elements to special access services and may seek appropriate retroactive reimbursement from <<customer_name>>.

- 5.9.7 <<customer_name>> may convert special access circuits to combinations of loop and transport UNEs pursuant to the terms of this Section and subject to the termination provisions in the applicable special access tariffs, if any.

6. Transport, Channelization and Dark Fiber

6.1 Transport

- 6.1.1 Interoffice transmission facility network elements include:

6.1.1.1 Dedicated transport, defined as BellSouth's transmission facilities, is dedicated to a particular customer or carrier that provides telecommunications between wire centers or switches owned by BellSouth, or between wire centers and switches owned by BellSouth and <<customer_name>>.

6.1.1.2 Dark Fiber transport, defined as BellSouth's optical transmission facilities without attached signal regeneration, multiplexing, aggregation or other electronics;

6.1.1.3 Common (Shared) transport, defined as transmission facilities shared by more than one carrier, including BellSouth, between end office switches, between end office switches and tandem switches, and between tandem switches, in BellSouth's network. Where BellSouth Network Elements are connected by intraoffice wiring, such wiring is provided as part of the Network Element and is not Common (Shared) Transport.

- 6.1.2 BellSouth shall:

6.1.2.1 Provide <<customer_name>> exclusive use of interoffice transmission facilities dedicated to a particular customer or carrier, or shared use of the features, functions, and capabilities of interoffice transmission facilities shared by more than one customer or carrier;

- 6.1.2.2 Provide all technically feasible transmission facilities, features, functions, and capabilities of the transport facility for the provision of telecommunications services;
- 6.1.2.3 Permit, to the extent technically feasible, <<customer_name>> to connect such interoffice facilities to equipment designated by <<customer_name>>, including but not limited to, <<customer_name>>'s collocated facilities; and
- 6.1.2.4 Permit, to the extent technically feasible, <<customer_name>> to obtain the functionality provided by BellSouth's digital cross-connect systems.
- 6.1.3 Technical Requirements of Common (Shared) Transport
 - 6.1.3.1 Common (Shared) Transport provided on DS1 or VT1.5 circuits, shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for Central Office to Central Office ("CO to CO") connections in the applicable industry standards.
 - 6.1.3.2 Common (Shared) Transport provided on DS3 circuits, STS-1 circuits, and higher transmission bit rate circuits, shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for CO to CO connections in the applicable industry standards.
 - 6.1.3.3 BellSouth shall be responsible for the engineering, provisioning, and maintenance of the underlying equipment and facilities that are used to provide Common (Shared) Transport.
 - 6.1.3.4 At a minimum, Common (Shared) Transport shall meet all of the requirements set forth in the applicable industry standards.
- 6.2 **Dedicated Transport**
 - 6.2.1 Dedicated Transport is composed of the following Unbundled Network Elements:
 - 6.2.1.1 Unbundled Local Channel, defined as the dedicated transmission path between <<customer_name>>'s Point of Presence("POP") and <<customer_name>>'s collocation space in the BellSouth Serving Wire Center for <<customer_name>>'s POP, and
 - 6.2.1.2 Unbundled Interoffice Channel, defined as the dedicated transmission path that provides telecommunication between BellSouth's Serving Wire Centers' collocations.
 - 6.2.1.3 BellSouth shall offer Dedicated Transport in each of the following ways:

- 6.2.1.3.1 As capacity on a shared UNE facility.
- 6.2.1.3.2 As a circuit (e.g., DS0, DS1, DS3) dedicated to <<customer_name>>.
- 6.2.1.4 Dedicated Transport may be provided over facilities such as optical fiber, copper twisted pair, and coaxial cable, and shall include transmission equipment such as, line terminating equipment, amplifiers, and regenerators.
- 6.2.2 Technical Requirements
 - 6.2.2.1 The entire designated transmission service (e.g., DS0, DS1, DS3) shall be dedicated to <<customer_name>> designated traffic.
 - 6.2.2.2 For DS1 or VT1.5 circuits, Dedicated Transport shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for Customer Interface to Central Office ("CI to CO") connections in the applicable industry standards.
 - 6.2.2.3 For DS3 circuits, Dedicated Transport shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for CI to CO connections in the applicable industry standards.
 - 6.2.2.4 BellSouth shall offer the following interface transmission rates for Dedicated Transport:
 - 6.2.2.4.1 DS0 Equivalent;
 - 6.2.2.4.2 DS1;
 - 6.2.2.4.3 DS3; and
 - 6.2.2.4.4 SDH (Synchronous Digital Hierarchy) Standard interface rates in accordance with International Telecommunications Union (ITU) Recommendation G.707 and Plesiochronous Digital Hierarchy (PDH) rates per ITU Recommendation G.704.
 - 6.2.2.5 BellSouth shall design Dedicated Transport according to its network infrastructure. <<customer_name>> shall specify the termination points for Dedicated Transport.
 - 6.2.2.6 At a minimum, Dedicated Transport shall meet each of the requirements set forth in the applicable industry technical references.
 - 6.2.2.7 BellSouth Technical References:
 - 6.2.2.7.1 TR-TSY-000191 Alarm Indication Signals Requirements and Objectives, Issue 1, May 1986.

6.2.2.7.2 TR 73501 LightGate® Service Interface and Performance Specifications, Issue D, June 1995.

6.2.2.7.3 TR 73525 MegaLink® Service, MegaLink Channel Service and MegaLink Plus Service Interface and Performance Specifications, Issue C, May 1996.

6.3 **Unbundled Channelization (Multiplexing)**

6.3.1 Unbundled Channelization (UC) provides the multiplexing capability that will allow a DS1 (1.544 Mbps) or DS3 (44.736 Mbps) or STS-1 Unbundled Network Element (UNE) or collocation cross-connect to be multiplexed or channelized at a BellSouth central office. Channelization will be offered with both the high and low speed sides to be connected to collocation. Channelization can be accomplished through the use of a stand-alone multiplexer or a digital cross-connect system at the discretion of BellSouth. Once UC has been installed, <<customer_name>> may request channel activation on an as-needed basis and BellSouth shall connect the requested facilities via Central Office Channel Interfaces (COCIs). The COCI must be compatible with the lower capacity facility and ordered with the lower capacity facility.

6.3.2 BellSouth shall make available the following channelization systems:

6.3.2.1 DS3 Channelization System: channelizes a DS3 signal into 28 DS1s/STS-1s.

6.3.2.2 DS1 Channelization System: channelizes a DS1 signal into 24 DS0s.

6.3.3 BellSouth shall make available the following

6.3.3.1 Central Office Channel Interfaces (COCI):

6.3.3.2 DS1 COCI, which can be activated on a DS3 Channelization System.

6.3.3.3 Voice Grade and Digital Data COCI, which can be activated on a DS1 Channelization System.

6.3.3.4 Data COCI, which can be activated on a DS1 Channelization System.

6.3.3.5 AMI and B8ZS line coding with either Super Frame (SF) and Extended Super Frame (ESF) framing formats will be supported as options.

6.3.4 Technical Requirements

6.3.4.1 In order to assure proper operation with BellSouth provided central office multiplexing functionality, <<customer_name>>'s channelization equipment must adhere strictly to form and protocol standards. <<customer_name>> must also

adhere to such applicable industry standards for the multiplex channel bank, for voice frequency encoding, for various signaling schemes, and for sub rate digital access.

6.3.4.2 DS0 to DS1 Channelization

6.3.4.2.1 The DS1 signal must be framed utilizing the framing structure defined in ANSI T1.107, Digital Hierarchy Formats Specifications and ANSI T1.403.02, DS1 Robbed-bit Signaling State Definitions.

6.3.4.3 DS1 to DS3 Channelization

6.3.4.3.1 The DS3 signal must be framed utilizing the framing structure define in ANSI T1.107, Digital Hierarchy Formats Specifications. The asynchronous M13 multiplex format (combination of M12 and M23 formats) is specified for terminal equipment that multiplexes 28 DS1s into a DS3.

6.3.4.4 DS1 to STS Channelization

6.3.4.4.1 The STS-1 signal must be framed utilizing the framing structure define in ANSI T1.105, Synchronous Optical Network (SONET) – Basic Description Including Multiplex Structure, Rates and Formats and T1.105.02, Synchronous Optical Network (SONET) – Payload Mappings.

6.4 **Dark Fiber Transport**

6.4.1 Dark Fiber Transport is an unused optical transmission facility without attached signal regeneration, multiplexing, aggregation or other electronics that connects two points within BellSouth's network. It may be strands of optical fiber existing in aerial or underground structure. BellSouth will not provide line terminating elements, regeneration or other electronics necessary for <<customer_name>> to utilize Dark Fiber Transport.

6.4.2 Dark Fiber Transport rates are differentiated between Local Channel, Interoffice Channel and Local Loop.

6.4.3 Requirements

6.4.3.1 BellSouth shall make available Dark Fiber Transport where it exists in BellSouth's network and where, as a result of future building or deployment, it becomes available. Dark Fiber Transport will not be deemed available if (1) it is used by BellSouth for maintenance and repair purposes, (2) it is designated for use pursuant to a firm order placed by another customer, (3) it is restricted for use by all carriers, including BellSouth, because of transmission problems or because it is scheduled for removal due to documented changes to roads and infrastructure, or

(4) BellSouth has plans to use the fiber within a two-year planning period. BellSouth is not required to place fibers for Dark Fiber Transport if there are none available.

- 6.4.3.2 If the requested Dark Fiber Transport has any lightwave repeater equipment interspliced to it, BellSouth will remove such equipment at <<customer_name>>'s request subject to time and materials charges.
- 6.4.3.3 <<customer_name>> is solely responsible for testing the quality of the Dark Fiber Transport to determine its usability and performance specifications.
- 6.4.3.4 BellSouth shall use its best efforts to provide to <<customer_name>> information regarding the location, availability and performance of Dark Fiber Transport within ten (10) business days after receiving a request from <<customer_name>>. Within such time period, BellSouth shall send written confirmation of availability of the Dark Fiber Transport.
- 6.4.3.5 If the requested Dark Fiber Transport is available, BellSouth shall use its commercially reasonable efforts to provision the Dark Fiber Transport to <<customer_name>> within twenty (20) business days after <<customer_name>> submits a valid, error free LSR. Provisioning includes identification of appropriate connection points (e.g., Light Guide Interconnection (LGX) or splice points) to enable <<customer_name>> to connect or splice <<customer_name>> provided transmission media (e.g., optical fiber) or equipment to the Dark Fiber Transport.
- 6.4.3.6 <<customer_name>> may splice at the end points and test Dark Fiber Transport obtained from BellSouth using <<customer_name>> or <<customer_name>> designated personnel. BellSouth shall provide appropriate interfaces to allow splicing and testing of Dark Fiber Transport. For fiber in underground conduit, BellSouth shall provide a minimum of 25 feet of excess cable to allow the uncoiled fiber to reach from the manhole to a splicing van.

7. BellSouth Switched Access ("SWA") 8XX Toll Free Dialing Ten Digit Screening Service

- 7.1 The BellSouth SWA 8XX Toll Free Dialing Ten Digit Screening Service database ("8XX SCP Database") is a Signaling control Point ("SCP") that contains customer record information and the functionality to provide call-handling instructions for 8XX calls. The 8XX SCP IN software stores data downloaded from the national SMS/8XX database and provides the routing instructions in response to queries from the Switching Service Point ("SSP") or tandem. The BellSouth SWA 8XX Toll Free Dialing Ten Digit Screening Service ("8XX TFD Service") utilizes the 8XX SCP Database to provide identification and routing of the 8XX calls, based on the ten digits dialed. At <<customer_name>>'s option,

8XX TFD Service is provided with or without POTS number delivery, dialing number delivery, and other optional complex features as selected by <<customer_name>>.

- 7.2 The 8XX SCP Database is designated to receive and respond to queries using the ANSI Specification of Signaling System Seven (SS7) protocol.

8. Line Information Database (LIDB)

- 8.1 The Line Information Database (LIDB) is a transaction-oriented database accessible through Common Channel Signaling (CCS) networks. For access to LIDB, <<customer_name>> must purchase appropriate signaling links pursuant to Section 9 of this Attachment. LIDB contains records associated with end user Line Numbers and Special Billing Numbers. LIDB accepts queries from other Network Elements and provides appropriate responses. The query originator need not be the owner of LIDB data. LIDB queries include functions such as screening billed numbers that provides the ability to accept Collect or Third Number Billing calls and validation of Telephone Line Number based non-proprietary calling cards. The interface for the LIDB functionality is the interface between BellSouth's CCS network and other CCS networks. LIDB also interfaces to administrative systems.
- 8.2 Technical Requirements
- 8.2.1 BellSouth will offer to <<customer_name>> any additional capabilities that are developed for LIDB during the life of this Agreement.
- 8.2.2 BellSouth shall process <<customer_name>>'s Customer records in LIDB at least at parity with BellSouth customer records, with respect to other LIDB functions. BellSouth shall indicate to <<customer_name>> what additional functions (if any) are performed by LIDB in the BellSouth network.
- 8.2.3 Within two (2) weeks after a request by <<customer_name>>, BellSouth shall provide <<customer_name>> with a list of the customer data items, which <<customer_name>> would have to provide in order to support each required LIDB function. The list shall indicate which data items are essential to LIDB function, and which are required only to support certain services. For each data item, the list shall show the data formats, the acceptable values of the data item and the meaning of those values.
- 8.2.4 BellSouth shall provide LIDB systems for which operating deficiencies that would result in calls being blocked shall not exceed 30 minutes per year.
- 8.2.5 BellSouth shall provide LIDB systems for which operating deficiencies that would not result in calls being blocked shall not exceed 12 hours per year.

- 8.2.6 BellSouth shall provide LIDB systems for which the LIDB function shall be in overload no more than 12 hours per year.
- 8.2.7 All additions, updates and deletions of <<customer_name>> data to the LIDB shall be solely at the direction of <<customer_name>>. Such direction from <<customer_name>> will not be required where the addition, update or deletion is necessary to perform standard fraud control measures (e.g., calling card auto-deactivation).
- 8.2.8 BellSouth shall provide priority updates to LIDB for <<customer_name>> data upon <<customer_name>>'s request (e.g., to support fraud detection), via password-protected telephone card, facsimile, or electronic mail within one hour of notice from the established BellSouth contact.
- 8.2.9 BellSouth shall provide LIDB systems such that no more than 0.01% of <<customer_name>> customer records will be missing from LIDB, as measured by <<customer_name>> audits. BellSouth will audit <<customer_name>> records in LIDB against DBAS to identify record mismatches and provide this data to a designated <<customer_name>> contact person to resolve the status of the records and BellSouth will update system appropriately. BellSouth will refer record of mis-matches to <<customer_name>> within one business day of audit. Once reconciled records are received back from <<customer_name>>, BellSouth will update LIDB the same business day if less than 500 records are received before 1:00PM Central Time. If more than 500 records are received, BellSouth will contact <<customer_name>> to negotiate a time frame for the updates, not to exceed three business days.
- 8.2.10 BellSouth shall perform backup and recovery of all of <<customer_name>>'s data in LIDB including sending to LIDB all changes made since the date of the most recent backup copy, in at least the same time frame BellSouth performs backup and recovery of BellSouth data in LIDB for itself. Currently, BellSouth performs backups of the LIDB for itself on a weekly basis and when a new software release is scheduled, a backup is performed prior to loading the new release.
- 8.2.11 BellSouth shall provide <<customer_name>> with LIDB reports of data, which are missing or contain errors, as well as any misrouted errors, within a reasonable time period as negotiated between <<customer_name>> and BellSouth.
- 8.2.12 BellSouth shall prevent any access to or use of <<customer_name>> data in LIDB by BellSouth personnel that are outside of established administrative and fraud control personnel, or by any other Party that is not authorized by <<customer_name>> in writing.
- 8.2.13 BellSouth shall provide <<customer_name>> performance of the LIDB Data Screening function, which allows a LIDB to completely or partially deny specific

query originators access to LIDB data owned by specific data owners, for Customer Data that is part of an NPA-NXX or RAO-0/1XX wholly or partially owned by <<customer_name>> at least at parity with BellSouth Customer Data. BellSouth shall obtain from <<customer_name>> the screening information associated with LIDB Data Screening of <<customer_name>> data in accordance with this requirement. BellSouth currently does not have LIDB Data Screening capabilities. When such capability is available, BellSouth shall offer it to <<customer_name>> under the BFR/NBR process as set forth in Attachment 12.

- 8.2.14 BellSouth shall accept queries to LIDB associated with <<customer_name>> customer records, and shall return responses in accordance with industry standards.
- 8.2.15 BellSouth shall provide mean processing time at the LIDB within 0.50 seconds under normal conditions as defined in industry standards.
- 8.2.16 BellSouth shall provide processing time at the LIDB within 1 second for 99% of all messages under normal conditions as defined in industry standards.
- 8.3 Interface Requirements
 - 8.3.1 BellSouth shall offer LIDB in accordance with the requirements of this subsection.
 - 8.3.2 The interface to LIDB shall be in accordance with the technical references contained within.
 - 8.3.3 The CCS interface to LIDB shall be the standard interface described herein.
 - 8.3.4 The LIDB Data Base interpretation of the ANSI-TCAP messages shall comply with the technical reference herein. Global Title Translation shall be maintained in the signaling network in order to support signaling network routing to the LIDB.

9. Signaling

- 9.1 BellSouth shall offer access to signaling and access to BellSouth's signalling databases subject to compatibility testing and at the rates set forth in this Attachment. BellSouth may provide mediated access to BellSouth signaling systems and databases. Available signalling elements include signaling links, signal transfer points and service control points. Signalling functionality will be available with both A-link and B-link connectivity.

9.2 Signalling Link Transport

- 9.2.1 Signaling Link Transport is a set of two or four dedicated 56 kbps transmission paths between <<customer_name>>-designated Signaling Points of Interconnection that provide appropriate physical diversity.
- 9.2.2 Technical Requirements
- 9.2.3 Signaling Link Transport shall consist of full duplex mode 56 kbps transmission paths and shall perform in the following two ways:
 - 9.2.3.1 As an "A-link" Signaling Link Transport is a connection between a switch or SCP and a home Signaling Transfer Point switch pair; and
 - 9.2.3.2 As a "B-link" Signaling Link Transport is a connection between two Signaling Transfer Point switch pairs in different company networks (e.g., between two Signaling Transfer Point switch pairs for two CLECs).
- 9.2.4 Signaling Link Transport shall consist of two or more signaling link layers as follows:
 - 9.2.4.1 An A-link layer shall consist of two links.
 - 9.2.4.2 A B-link layer shall consist of four links.
 - 9.2.4.3 A signaling link layer shall satisfy interoffice and intraoffice diversity of facilities and equipment, such that:
 - 9.2.4.4 No single failure of facilities or equipment causes the failure of both links in an A-link layer (i.e., the links should be provided on a minimum of two separate physical paths end-to-end); and
 - 9.2.4.5 No two concurrent failures of facilities or equipment shall cause the failure of all four links in a B-link layer (i.e., the links should be provided on a minimum of three separate physical paths end-to-end).
- 9.2.5 Interface Requirements
 - 9.2.5.1 There shall be a DS1 (1.544 Mbps) interface at <<customer_name>>'s designated SPOIs. Each 56 kbps transmission path shall appear as a DS0 channel within the DS1 interface.
- 9.3 **Signalling Transfer Points (STPs)**
 - 9.3.1 A Signaling Transfer Point is a signaling network function that includes all of the capabilities provided by the signaling transfer point switches (STPs) and their associated signaling links that enables the exchange of SS7 messages among and

between switching elements, database elements and signaling transfer point switches.

9.3.2 Technical Requirements

9.3.2.1 Signaling Transfer Point s shall provide access to BellSouth Local Switching or Tandem Switching and to BellSouth Service Control Points/Databases connected to BellSouth SS7 network. Signaling Transfer Point also provide access to third-party local or tandem switching and Third-party-provided Signaling Transfer Points.

9.3.2.2 The connectivity provided by Signaling Transfer Points shall fully support the functions of all other Network Elements connected to the BellSouth SS7 network. This includes the use of the BellSouth SS7 network to convey messages that neither originate nor terminate at a signaling end point directly connected to the BellSouth SS7 network (i.e., transit messages). When the BellSouth SS7 network is used to convey transit messages, there shall be no alteration of the Integrated Services Digital Network User Part or Transaction Capabilities Application Part (TCAP) user data that constitutes the content of the message.

9.3.2.3 If a BellSouth tandem switch routes traffic, based on dialed or translated digits, on SS7 trunks between a <<customer_name>> local switch and third party local switch, the BellSouth SS7 network shall convey the TCAP messages that are necessary to provide Call Management features (Automatic Callback, Automatic Recall, and Screening List Editing) between <<customer_name>> local STPs and the STPs that provide connectivity with the third party local switch, even if the third party local switch is not directly connected to BellSouth STPs.

9.3.2.4 STPs shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service, as defined in Telcordia ANSI Interconnection Requirements. This includes Global Title Translation (GTT) and SCCP Management procedures, as specified in ANSI T1.112.4. Where the destination signaling point is a <<customer_name>> or third party local or tandem switching system directly connected to BellSouth SS7 network, BellSouth shall perform final GTT of messages to the destination and SCCP Subsystem Management of the destination. In all other cases, BellSouth shall perform intermediate GTT of messages to a gateway pair of STPs in an SS7 network connected with BellSouth SS7 network, and shall not perform SCCP Subsystem Management of the destination. If BellSouth performs final GTT to a <<customer_name>> database, then <<customer_name>> agrees to provide BellSouth with the Destination Point Code for <<customer_name>> database.

9.3.2.5 STPs shall provide all functions of the OMAP as specified in applicable industry standard technical references, which may include, where available in BellSouth's

network, MTP Routing Verification Test (MRVT); and SCCP Routing Verification Test (SRVT).

- 9.3.2.6 Where the destination signaling point is a BellSouth local or tandem switching system or database, or is a <<customer_name>> or third party local or tandem switching system directly connected to the BellSouth SS7 network, STPs shall perform MRVT and SRVT to the destination signaling point. In all other cases, STPs shall perform MRVT and SRVT to a gateway pair of STPs in an SS7 network connected with the BellSouth SS7 network. This requirement may be superseded by the specifications for Internetwork MRVT and SRVT when these become approved ANSI standards and available capabilities of BellSouth STPs.

9.4 **SS7 Advanced Intelligent Network (AIN) Access**

- 9.4.1 When technically feasible and upon request by <<customer_name>>, SS7 AIN Access shall be made available in association with switching. SS7 AIN Access is the provisioning of AIN 0.1 triggers in an equipped BellSouth local switch and interconnection of the BellSouth SS7 network with <<customer_name>>'s SS7 network to exchange TCAP queries and responses with a <<customer_name>> SCP.
- 9.4.2 SS7 AIN Access shall provide <<customer_name>> SCP access to an equipped BellSouth local switch via interconnection of BellSouth's SS7 and <<customer_name>> SS7 Networks. BellSouth shall offer SS7 AIN Access through its STPs. If BellSouth requires a mediation device on any part of its network specific to this form of access, BellSouth must route its messages in the same manner. The interconnection arrangement shall result in the BellSouth local switch recognizing the <<customer_name>> SCP as at least at parity with BellSouth's SCPs in terms of interfaces, performance and capabilities.
- 9.4.3 Interface Requirements
- 9.4.3.1 BellSouth shall provide the following STP options to connect <<customer_name>> or <<customer_name>>-designated local switching systems to the BellSouth SS7 network:
- 9.4.3.1.1 An A-link interface from <<customer_name>> local switching systems; and,
- 9.4.3.1.2 A B-link interface from <<customer_name>> local STPs.
- 9.4.3.2 Each type of interface shall be provided by one or more layers of signaling links.
- 9.4.3.3 The Signaling Point of Interconnection for each link shall be located at a cross-connect element in the Central Office (CO) where the BellSouth STP is located. There shall be a DS1 or higher rate transport interface at each of the SPOIs. Each

signaling link shall appear as a DS0 channel within the DS1 or higher rate interface.

9.4.3.4 BellSouth shall provide intraoffice diversity between the Signaling Point of Interconnection and BellSouth STPs, so that no single failure of intraoffice facilities or equipment shall cause the failure of both B-links in a layer connecting to a BellSouth STP.

9.4.3.5 STPs shall provide all functions of the MTP as defined in the applicable industry standard technical references.

9.4.4 Message Screening

9.4.4.1 BellSouth shall set message screening parameters so as to accept valid messages from <<customer_name>> local or tandem switching systems destined to any signaling point within BellSouth's SS7 network where the <<customer_name>> switching system has a valid signaling relationship.

9.4.4.2 BellSouth shall set message screening parameters so as to pass valid messages from <<customer_name>> local or tandem switching systems destined to any signaling point or network accessed through BellSouth's SS7 network where the <<customer_name>> switching system has a valid signaling relationship.

9.4.4.3 BellSouth shall set message screening parameters so as to accept and pass/send valid messages destined to and from <<customer_name>> from any signaling point or network interconnected through BellSouth's SS7 network where the <<customer_name>> SCP has a valid signaling relationship.

9.5 **Service Control Points/Databases**

9.5.1 Call Related Databases provide the storage of, access to, and manipulation of information required to offer a particular service and/or capability. BellSouth shall provide access to the following Databases: Local Number Portability, LIDB, Toll Free Number Database, Automatic Location Identification/Data Management System, and Calling Name Database. BellSouth also provides access to Service Creation Environment and Service Management System (SCE/SMS) application databases and Directory Assistance.

9.5.2 A Service Control Point (SCP) is deployed in a SS7 network that executes service application logic in response to SS7 queries sent to it by a switching system also connected to the SS7 network. Service Management Systems provide operational interfaces to allow for provisioning, administration and maintenance of subscriber data and service application data stored in SCPs.

9.5.3 Technical Requirements for SCPs/Databases

- 9.5.3.1 BellSouth shall provide physical access to SCPs through the SS7 network and protocols with TCAP as the application layer protocol.
- 9.5.3.2 BellSouth shall provide physical interconnection to databases via industry standard interfaces and protocols (e.g. SS7, ISDN and X.25).
- 9.5.3.3 The reliability of interconnection options shall be consistent with requirements for diversity and survivability.

9.6 **Local Number Portability Database**

- 9.6.1 The Permanent Number Portability (PNP) database supplies routing numbers for calls involving numbers that have been ported from one local service provider to another. BellSouth agrees to provide access to the PNP database at rates, terms and conditions as set forth by BellSouth and in accordance with an effective FCC or Commission directive.

9.7 **SS7 Network Interconnection**

- 9.7.1 SS7 Network Interconnection is the interconnection of <<customer_name>> local signaling transfer point switches or <<customer_name>> local or tandem switching systems with BellSouth signaling transfer point switches. This interconnection provides connectivity that enables the exchange of SS7 messages among BellSouth switching systems and databases, <<customer_name>> local or tandem switching systems, and other third-party switching systems directly connected to the BellSouth SS7 network.
- 9.7.2 The connectivity provided by SS7 Network Interconnection shall fully support the functions of BellSouth switching systems and databases and <<customer_name>> or other third-party switching systems with A-link access to the BellSouth SS7 network.
- 9.7.3 If traffic is routed based on dialed or translated digits between a <<customer_name>> local switching system and a BellSouth or other third-party local switching system, either directly or via a BellSouth tandem switching system, then it is a requirement that the BellSouth SS7 network convey via SS7 Network Interconnection the TCAP messages that are necessary to provide Call Management services (Automatic Callback, Automatic Recall, and Screening List Editing) between the <<customer_name>> local signaling transfer point switches and BellSouth or other third-party local switch.
- 9.7.4 SS7 Network Interconnection shall provide:
 - 9.7.4.1 Signaling Data Link functions, as specified in ANSI T1.111.2;

- 9.7.4.2 Signaling Link functions, as specified in ANSI T1.111.3; and
- 9.7.4.3 Signaling Network Management functions, as specified in ANSI T1.111.4.
- 9.7.5 SS7 Network Interconnection shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service, as specified in ANSI T1.112. This includes Global Title Translation (GTT) and SCCP Management procedures, as specified in ANSI T1.112.4. Where the destination signaling point is a BellSouth switching system or DB, or is another third-party local or tandem switching system directly connected to the BellSouth SS7 network, SS7 Network Interconnection shall include final GTT of messages to the destination and SCCP Subsystem Management of the destination. Where the destination signaling point is a <<customer_name>> local or tandem switching system, SS7 Network Interconnection shall include intermediate GTT of messages to a gateway pair of <<customer_name>> local STPs, and shall not include SCCP Subsystem Management of the destination.
- 9.7.6 SS7 Network Interconnection shall provide all functions of the Integrated Services Digital Network User Part, as specified in ANSI T1.113.
- 9.7.7 SS7 Network Interconnection shall provide all functions of the TCAP, as specified in ANSI T1.114.
- 9.7.8 If Internetwork MRVT and SRVT become approved ANSI standards and available capabilities of BellSouth STPs, SS7 Network Interconnection may provide these functions of the OMAP.
- 9.7.9 Interface Requirements
- 9.7.9.1 The following SS7 Network Interconnection interface options are available to connect <<customer_name>> or <<customer_name>>-designated local or tandem switching systems or signaling transfer point switches to the BellSouth SS7 network:
 - 9.7.9.1.1 A-link interface from <<customer_name>> local or tandem switching systems; and
 - 9.7.9.1.2 B-link interface from <<customer_name>> STPs.
- 9.7.9.2 The Signaling Point of Interconnection for each link shall be located at a cross-connect element in the central office where the BellSouth STP is located. There shall be a DS1 or higher rate transport interface at each of the Signaling Points of interconnection. Each signaling link shall appear as a DS0 channel within the DS1 or higher rate interface.

- 9.7.9.3 BellSouth shall provide intraoffice diversity between the Signaling Points of Interconnection and the BellSouth STP, so that no single failure of intraoffice facilities or equipment shall cause the failure of both B-links in a layer connecting to a BellSouth STP.
- 9.7.9.4 The protocol interface requirements for SS7 Network Interconnection include the MTP, ISDNUP, SCCP, and TCAP. These protocol interfaces shall conform to the applicable industry standard technical references.
- 9.7.9.5 BellSouth shall set message screening parameters to accept messages from <<customer_name>> local or tandem switching systems destined to any signaling point in the BellSouth SS7 network with which the <<customer_name>> switching system has a valid signaling relationship.

10. Operator Service and Directory Assistance

- 10.1 BellSouth shall only be required to provide Operator Service and Directory Assistance Service functions at the rates set forth in Exhibit B until such time as the TRA issues an order that states that the BellSouth routing solution is functionally adequate and delineates the service areas the compliant routing solution is available to <<customer name>>. BellSouth does not waive any rights to appeal or other wise challenge the Authority's directive that it must provide Operator Service and Directory Assistance Service functions at the rates set forth in Exhibit B until the Authority has affirmatively stated that BellSouth offers a routing solution that is functionally adequate.
- 10.2 Operator Service provides: (1) operator handling for call completion (for example, collect, third number billing, and manual calling-card calls), (2) operator or automated assistance for billing after the end user has dialed the called number (for example, calling card calls); and (3) special services including but not limited to Busy Line Verification and Emergency Line Interrupt (ELI), Emergency Agency Call, and Operator-assisted Directory Assistance.
- 10.3 Upon request for BellSouth Operator Services, BellSouth shall:
 - 10.3.1 Process 0+ and 0- dialed local calls.
 - 10.3.2 Process 0+ and 0- intraLATA toll calls.
 - 10.3.3 Process calls that are billed to <<customer_name>> end user's calling card that can be validated by BellSouth.
 - 10.3.4 Process person-to-person calls.
 - 10.3.5 Process collect calls.

- 10.3.6 Provide the capability for callers to bill to a third party and shall also process such calls.
- 10.3.7 Process station-to-station calls.
- 10.3.8 Process Busy Line Verify and Emergency Line Interrupt requests.
- 10.3.9 Process emergency call trace originated by Public Safety Answering Points.
- 10.3.10 Process operator-assisted directory assistance calls.
- 10.3.11 Adhere to equal access requirements, providing <<customer_name>> local end users the same IXC access as provided to BellSouth end users.
- 10.3.12 Exercise at least the same level of fraud control in providing Operator Service to <<customer_name>> that BellSouth provides for its own operator service.
- 10.3.13 Perform Billed Number Screening when handling Collect, Person-to-Person, and Billed-to-Third-Party calls.
- 10.3.14 Direct customer account and other similar inquiries to the customer service center designated by <<customer_name>>.
- 10.3.15 Provide call records to <<customer_name>> in accordance with ODUF standards specified in Attachment 7.
- 10.3.16 The interface requirements shall conform to the interface specifications for the platform used to provide Operator Services as long as the interface conforms to industry standards.

10.4 **Directory Assistance Service**

- 10.4.1 Directory Assistance Service provides local end user telephone number listings with the option to complete the call at the caller's direction separate and distinct from local switching.
- 10.4.2 Directory Assistance Service shall provide up to two listing requests per call. If available and if requested by <<customer_name>>'s end user, BellSouth shall provide caller-optional directory assistance call completion service at rates contained in this Attachment to one of the provided listings.

10.4.3 **Directory Assistance Service Updates**

- 10.4.3.1 BellSouth shall update end user listings changes daily. These changes include:
 - 10.4.3.1.1 New end user connections

10.4.3.1.2 End user disconnections

10.4.3.1.3 End user address changes

10.4.3.2 These updates shall also be provided for non-listed and non-published numbers for use in emergencies.

10.5 **Branding for Operator Call Processing and Directory Assistance**

10.5.1 BellSouth's branding feature provides a definable announcement to <<customer_name>> end users using Directory Assistance (DA)/Operator Call Processing (OCP) prior to placing such end users in queue or connecting them to an available operator or automated operator system. This feature allows <<customer_name>> to have its calls custom branded with <<customer_name>>'s name on whose behalf BellSouth is providing Directory Assistance and/or Operator Call Processing. Rates for the branding features are set forth in this Attachment.

10.5.2 BellSouth offers three (3) service levels of branding to <<customer_name>> when ordering BellSouth's Directory Assistance and Operator Call Processing.

10.5.2.1 Service Level 1 - BellSouth Branding

10.5.2.2 Service Level 2 - Unbranding

10.5.2.3 Service Level 3 - Custom Branding

10.5.3 Where <<customer_name>> resells BellSouth's services or purchases unbundled local switching from BellSouth, and utilizes a directory assistance provider and operator services provider other than BellSouth, BellSouth will route <<customer_name>>'s end user calls to that provider through Selective Carrier Routing.

10.5.4 **For Resellers and Use with an Unbundled Port**

10.5.4.1 Selective Call Routing using Line Class Codes (SCR-LCC) provides the capability for <<customer_name>> to have its OS/DA calls routed to BellSouth's OS/DA platform for BellSouth provided Custom Branded or Unbranded OS/DA or to its own or an alternate OS/DA platform for Self-Branded OS/DA. SCR-LCC is only available if line class code capacity is available in the requested BellSouth end office switches.

10.5.4.2 Custom Branding for Directory Assistance is not available for certain classes of service, including but not limited to Hotel/Motel services, WATS service, and certain PBX services.

- 10.5.4.3 Where available, <<customer_name>> specific and unique line class codes are programmed in each BellSouth end office switch where <<customer_name>> intends to serve end users with customized OS/DA branding. The line class codes specifically identify <<customer_name>>'s end users so OS/DA calls can be routed over the appropriate trunk group to the requested OS/DA platform. Additional line class codes are required in each end office if the end office serves multiple NPAs (i.e., a unique LCC is required per NPA), and/or if the end office switch serves multiple rate areas and <<customer_name>> intends to provide <<customer_name>> -branded OS/DA to its end users in these multiple rate areas.
- 10.5.4.4 BellSouth Branding is the Default Service Level.
- 10.5.4.5 SCR-LCC supporting Custom Branding and Self Branding require <<customer_name>> to order dedicated trunking from each BellSouth end office identified by <<customer_name>>, either to the BellSouth Traffic Operator Position System (TOPS) for Custom Branding or to the <<customer_name>> Operator Service Provider for Self Branding. Separate trunk groups are required for Operator Services and for Directory Assistance. Rates for trunks are set forth in applicable BellSouth tariffs.
- 10.5.4.6 Unbranding - Unbranded Directory Assistance and/or Operator Call Processing calls ride common trunk groups provisioned by BellSouth from those end offices identified by <<customer_name>> to the BellSouth TOPS. These calls are routed to "No Announcement."
- 10.5.4.7 The Rates for SCR-LCC are as set forth in this Attachment. There is a nonrecurring charge for the establishment of each Line Class Code in each BellSouth central office. Furthermore, for Unbranded and Custom Branded OS/DA provided by BellSouth Operator Services with unbundled ports and unbundled port/loop switch combinations, monthly recurring usage charges shall apply for the UNEs necessary to provide the service, such as end office and tandem switching and common transport. A flat rated end office switching charge shall apply to Self-Branded OS/DA when used in conjunction with unbundled ports and unbundled port/loop switch combinations.
- 10.5.4.8 In addition to the branding methods described in this Section, Unbranding and Custom Branding are also available for Directory Assistance, Operator Call Processing or both via Originating Line Number Screening (OLNS) software. When utilizing this method of Unbranding or Custom Branding, <<customer_name>> shall not be required to purchase dedicated trunking.
- 10.5.4.9 For BellSouth to provide Unbranding or Custom Branding via OLNS software for Operator Call Processing or for Directory Assistance, <<customer_name>> must

have its Operating Company Number ("OCN(s)") and telephone numbers reside in BellSouth's LIDB; however, a BellSouth LIDB Storage Agreement is not required. To implement Unbranding and Custom Branding via OLNS software, <<customer_name>> must submit a manual order form which requires, among other things, <<customer_name>>'s OCN and a forecast for the traffic volume anticipated for each BellSouth TOPS during the peak busy hour. <<customer_name>> shall provide updates to such forecast on a quarterly basis and at any time such forecasted traffic volumes are expected to change significantly. Upon <<customer_name>>'s purchase of Unbranding or Custom Branding using OLNS software for any particular TOPS, all <<customer_name>> end users served by that TOPS will receive the Unbranded "no announcement" or the Custom Branded announcement.

10.5.4.10 Rates for Unbranding and Custom Branding via OLNS software for Directory Assistance and for Operator Call Processing are as set forth in this Attachment. Notwithstanding anything to the contrary in this Agreement, to the extent BellSouth is unable to bill <<customer_name>> applicable charges currently, BellSouth shall track such charges and will bill the same retroactively at such time as a billing process is implemented. In addition to the charges for Unbranding and Custom Branding via OLNS software, <<customer_name>> shall continue to pay BellSouth applicable labor and other charges for the use of BellSouth's Directory Assistance and Operator Call Processing platforms as set forth in this Attachment. Further, where <<customer_name>> is purchasing unbundled local switching from BellSouth, UNE usage charges for end office switching, tandem switching and transport, as applicable, shall continue to apply.

10.5.5 For Facilities Based Carriers

10.5.5.1 All Service Levels require <<customer_name>> to order dedicated trunking from their end office(s) point of interface to the BellSouth TOPS Switches. Rates for trunks are set forth in applicable BellSouth tariffs.

10.5.5.2 Customized Branding includes charges for the recording of the branding announcement and the loading of the audio units in each TOPS Switch and Network Applications Vehicle (NAV) equipment for which <<customer_name>> requires service.

10.5.5.3 Directory Assistance customized branding uses:

10.5.5.3.1 the recording of <<customer_name>>;

10.5.5.3.2 the front-end loading of the Digital Recorded Announcement Machine (DRAM) in each TOPS switch.

10.5.5.4 Operator Call Processing customized branding uses:

- 10.5.5.4.1 the recording of <<customer_name>>;
- 10.5.5.4.2 the front-end loading of the DRAM in the TOPS Switch;
- 10.5.5.4.3 the 0- automation loading for the audio units in the Enhanced Billing and Access Service (EBAS) in the Network Applications Vehicle (NAV).

10.6 **Directory Assistance Database Service (DADS)**

- 10.6.1 BellSouth shall make its Directory Assistance Database Service (DADS) available at the rates set forth in this Attachment solely for the expressed purpose of providing Directory Assistance type services to <<customer_name>> end users. The term "end user" denotes any entity that obtains Directory Assistance type services for its own use from a DADS customer. Directory Assistance type service is defined as Voice Directory Assistance (DA Operator assisted) and Electronic Directory Assistance (Data System assisted). <<customer_name>> agrees that DADS will not be used for any purpose that violates federal or state laws, statutes, regulatory orders or tariffs. For the purposes of provisioning a Directory Assistance type service, all terms and conditions of GSST A38 apply and are incorporated by reference herein. Except for the permitted uses, <<customer_name>> agrees not to disclose DADS to others and shall provide due care in providing for the security and confidentiality of DADS.
- 10.6.2 BellSouth shall initially provide <<customer_name>> with a Base File of subscriber listings which reflect all listing change activity occurring since <<customer_name>>'s most recent update via magnetic tape. DADS is available and may be ordered on a Business, Residence or combined Business and Residence listings basis for each central office requested. BellSouth will require approximately 30- 45 days after receiving an order from <<customer_name>> to prepare the Base File.
- 10.6.3 BellSouth will provide updates at least weekly reflecting all listing change activity occurring since <<customer_name>>'s previous update. Delivery of updates will commence immediately after <<customer_name>> receives the Base File. Updates will be provided via magnetic tape unless BellSouth and <<customer_name>> mutually develop CONNECT: DirectTM electronic connectivity. <<customer_name>> will pay all costs associated with CONNECT: DirectTM connectivity, which will vary depending upon volume and mileage.
- 10.6.4 <<customer_name>> authorizes the inclusion of <<customer_name>> Directory Assistance listings in the BellSouth Directory Assistance products, including but not limited to DADS. Any other use is not authorized.

10.7 **Direct Access to Directory Assistance Service**

- 10.7.1 Direct Access to Directory Assistance Service (DADAS) will provide <<customer_name>>'s directory assistance operators with the ability to search all available BellSouth subscriber listings using the Directory Assistance search format. Subscription to DADAS will allow <<customer_name>> to utilize its own switch, operator workstations and optional audio subsystems.
- 10.7.2 Rates, terms and conditions for provisioning DADAS are as set forth in the FCC tariff No. 1.
- 11. Automatic Location Identification/Data Management System (ALI/DMS)**
 - 11.1 The ALI/DMS Database contains end user information (including name, address, telephone information, and sometimes special information from the local service provider or end user) used to determine to which Public Safety Answering Point ("PSAP") to route the call. The ALI/DMS database is used to provide enhanced routing flexibility for E911.
 - 11.2 Technical Requirements
 - 11.2.1 BellSouth shall provide <<customer_name>> a data link to the ALI/DMS database or permit <<customer_name>> to provide its own data link to the ALI/DMS database. BellSouth shall provide error reports from the ALI/DMS database to <<customer_name>> after <<customer_name>> inputs end user information into the ALI/DMS database. Alternately, <<customer_name>> may request that BellSouth enter <<customer_name>>'s end user information into the database, and validate end user information.
 - 11.2.2 When BellSouth is responsible for administering the ALI/DMS database in its entirety, ported number NXXs entries for the ported numbers should be maintained unless <<customer_name>> requests otherwise and shall be updated if <<customer_name>> requests, provided <<customer_name>> supplies BellSouth with the updates.
 - 11.2.3 When Remote Call Forwarding (RCF) is used to provide number portability to the local end user and a remark or other appropriate field information is available in the database, the shadow or "forwarded-to" number and an indication that the number is ported shall be added to the customer record.
 - 11.2.4 If BellSouth is responsible for configuring PSAP features (for cases when the PSAP or BellSouth supports an ISDN interface) it shall ensure that CLASS Automatic Recall (Call Return) is not used to call back to the ported number. Although BellSouth currently does not have ISDN interface, BellSouth agrees to comply with this requirement once ISDN interfaces are in place.
 - 11.3 Interface Requirements

- 11.3.1 The interface between the E911 Switch or Tandem and the ALI/DMS database for <<customer_name>> end users shall meet industry standards.

12. Calling Name (CNAM) Database Service

- 12.1 CNAM is the ability to associate a name with the calling party number, allowing the end user (to which a call is being terminated) to view the calling party's name before the call is answered. This service also provides <<customer_name>> the opportunity to load and store its subscriber names in the BellSouth CNAM SCPs.
- 12.2 <<customer_name>> shall submit to BellSouth a notice of its intent to access and utilize BellSouth CNAM Database Services. Said notice shall be in writing, no less than 60 days prior to <<customer_name>>'s access to BellSouth's CNAM Database Services and shall be addressed to <<customer_name>>'s Account Manager.
- 12.3 BellSouth's provision of CNAM Database Services to <<customer_name>> requires interconnection from <<customer_name>> to BellSouth CNAM Service Control Points (SCPs). Such interconnections shall be established pursuant to Attachment 3 of this Agreement, incorporated herein by this reference.
- 12.4 In order to formulate a CNAM query to be sent to the BellSouth CNAM SCP, <<customer_name>> shall provide its own CNAM SSP. <<customer_name>>'s CNAM SSPs must be compliant with TR-NWT-001188, "CLASS Calling Name Delivery Generic Requirements".
- 12.5 If <<customer_name>> elects to access the BellSouth CNAM SCP via a third party CCS7 transport provider, the third party CCS7 provider shall interconnect with the BellSouth CCS7 network according to BellSouth's Common Channel Signaling Interconnection Guidelines and Telcordia's CCS Network Interface Specification document, TR-TSV-000905. In addition, the third party provider shall establish CCS7 interconnection at the BellSouth Local Signal Transfer Points (LSTPs) serving the BellSouth CNAM SCPs that <<customer_name>> desires to query.
- 12.6 If <<customer_name>> queries the BellSouth CNAM SCP via a third party national SS7 transport provider, the third party SS7 provider shall interconnect with the BellSouth CCS7 network according to BellSouth's Common Channel Signaling Interconnection Guidelines and Telcordia's CCS Network Interface Specification document, TR-TSV-000905. In addition, the third party provider shall establish SS7 interconnection at one or more of the BellSouth Gateway Signal Transfer Points (STPs). The payment of all costs associated with the transport of SS7 signals via a third party will be established by mutual agreement of the Parties and this Agreement shall be amended in accordance with

modification of the General Terms and Conditions incorporated herein by this reference.

- 12.7 The mechanism to be used by <<customer_name>> for initial CNAM record load and/or updates shall be determined by mutual agreement. The initial load and all updates shall be provided by <<customer_name>> in the BellSouth specified format and shall contain records for every working telephone number that can originate phone calls. It is the responsibility of <<customer_name>> to provide accurate information to BellSouth on a current basis.
- 12.8 Updates to the SMS shall occur no less than once a week, reflect service order activity affecting either name or telephone number, and involve only record additions, deletions or changes.
- 12.9 <<customer_name>> CNAM records provided for storage in the BellSouth CNAM SCP shall be available, on a SCP query basis only, to all Parties querying the BellSouth CNAM SCP. Further, CNAM service shall be provided by each Party consistent with state and/or federal regulation.
- 13. Service Creation Environment and Service Management System (SCE/SMS) Advanced Intelligent Network (AIN) Access**
- 13.1 BellSouth's Service Creation Environment and Service Management System (SCE/SMS) Advanced Intelligent Network (AIN) Access shall provide <<customer_name>> the capability to create service applications in a BellSouth SCE and deploy those applications in a BellSouth SMS to a BellSouth SCP.
- 13.2 BellSouth's SCE/SMS AIN Access shall provide access to SCE hardware, software, testing and technical support (e.g., help desk, system administrator) resources available to <<customer_name>>. Training, documentation, and technical support will address use of SCE and SMS access and administrative functions, but will not include support for the creation of a specific service application.
- 13.3 BellSouth SCP shall partition and protect <<customer_name>> service logic and data from unauthorized access.
- 13.4 When <<customer_name>> selects SCE/SMS AIN Access, BellSouth shall provide training, documentation, and technical support to enable <<customer_name>> to use BellSouth's SCE/SMS AIN Access to create and administer applications.
- 13.4.1 <<customer_name>> access will be provided via remote data connection (e.g., dial-in, ISDN).

- 13.4.2 BellSouth shall allow <<customer_name>> to download data forms and/or tables to BellSouth SCP via BellSouth SMS without intervention from BellSouth.

14. Basic 911 and E911

- 14.1 Basic 911 and E911 provides a caller access to the applicable emergency service bureau by dialing 911.

- 14.2 Basic 911 Service Provisioning. BellSouth will provide to <<customer_name>> a list consisting of each municipality that subscribes to Basic 911 service. The list will also provide, if known, the E911 conversion date for each municipality and, for network routing purposes, a ten-digit directory number representing the appropriate emergency answering position for each municipality subscribing to 911. <<customer_name>> will be required to arrange to accept 911 calls from its end users in municipalities that subscribe to Basic 911 service and translate the 911 call to the appropriate 10-digit directory number as stated on the list provided by BellSouth. <<customer_name>> will be required to route that call to BellSouth at the appropriate tandem or end office. When a municipality converts to E911 service, <<customer_name>> will be required to begin using E911 procedures.

- 14.3 E911 Service Provisioning. <<customer_name>> shall install a minimum of two dedicated trunks originating from the <<customer_name>> serving wire center and terminating to the appropriate E911 tandem. The dedicated trunks shall be, at a minimum, DS-0 level trunks configured either as a 2-wire analog interface or as part of a digital (1.544 Mb/s) interface. Either configuration shall use CAMA-type signaling with multifrequency ("MF") pulsing that will deliver automatic number identification ("ANI") with the voice portion of the call. If the user interface is digital, MF pulses, as well as other AC signals, shall be encoded per the u-255 Law convention. <<customer_name>> will be required to provide BellSouth daily updates to the E911 database. <<customer_name>> will be required to forward 911 calls to the appropriate E911 tandem, along with ANI, based upon the current E911 end office to tandem homing arrangement as provided by BellSouth. If the E911 tandem trunks are not available, <<customer_name>> will be required to route the call to a designated 7-digit local number residing in the appropriate Public Service Answering Point ("PSAP"). This call will be transported over BellSouth's interoffice network and will not carry the ANI of the calling party. <<customer_name>> shall be responsible for providing BellSouth with complete and accurate data for submission to the 911/E911 database for the purpose of providing 911/E911 to its end users.

- 14.4 Rates. Charges for 911/E911 service are borne by the municipality purchasing the service. BellSouth will impose no charge on <<customer_name>> beyond applicable charges for BellSouth trunking arrangements.

14.5 Basic 911 and E911 functions provided to <<customer_name>> shall be at least at parity with the support and services that BellSouth provides to its end users for such similar functionality.

14.6 Detailed Practices and Procedures. The detailed practices and procedures contained in the E911 Local Exchange Carrier Guide For Facility-Based Providers, incorporated herein by this reference and as amended from time to time during the term of this Agreement will determine the appropriate practices and procedures for BellSouth and <<customer_name>> to follow in providing 911/E911 services.

15. Operational Support Systems (OSS)

15.1 BellSouth has developed and made available the following electronic interfaces by which <<customer_name>> may submit LSRs electronically.

| | |
|------|-----------------------------------|
| LENS | Local Exchange Navigation System |
| EDI | Electronic Data Interchange |
| TAG | Telecommunications Access Gateway |

15.2 LSRs submitted by means of one of these electronic interfaces will incur an OSS electronic ordering charge as specified in the table below. An individual LSR will be identified for billing purposes by its Purchase Order Number (PON). LSRs submitted by means other than one of these interactive interfaces (mail, fax, courier, etc.) will incur a manual order charge. All OSS charges are specified in Rate Exhibit B of this Attachment 2.

15.3 Denial/Restoral OSS Charge

15.3.1 In the event <<customer_name>> provides a list of customers to be denied and restored, rather than an LSR, each location on the list will require a separate PON and, therefore will be billed as one LSR per location.

15.4 Cancellation OSS Charge

15.4.1 <<customer_name>> will incur an OSS charge for an accepted LSR that is later canceled.

15.4.2 Supplements or clarifications to a previously billed LSR will not incur another OSS charge.